

ASIATIC RESEARCHES;

OR,

TRANSACTIONS

OF THE

SOCIETY,

INSTITUTED IN BENGAL,

FOR INQUIRING INTO THE

**HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES
AND LITERATURE,**

or

A S I A.

VOLUME THE THIRD

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A D V E R T I S E M E N T.

As it seemed proper to exhibit at one view the whole of Lieutenant WILFOORD's learned Essay on *Egypt* and the *Nile*, there was not room in this volume for a Meteorological Journal, and it may be doubted, whether the utility of such diaries compensates for their tediousness, and for the space, which they occupy—the two specimens already published will give a correct idea of the weather in this part of *India*. Very copious and interesting materials for the fourth volume are now ready for the press, but a short paper on the Code of Siamese Laws, which was too hastily announced, has been unfortunately lost, and we cannot expect, that Captain LIGHT, the only *Englishman* among us, who understands the language of *Siam*, should find leisure, in his present important station, to compose another account of that curious, but abstruse, work.

I.

THE EIGHTH

ANNIVERSARY DISCOURSE,

DELIVERED 24th FEBRUARY, 1791,

BY THE PRESIDENT.

GENTLEMEN,

WE have taken a general view, at our five last annual meetings, of as many celebrated nations, whom we have proved, as far as the subject admits of proof, to have descended from three primitive stocks, which we call for the present *Indian*, *Arabian*, *Tartarian*, and we have nearly travelled over all *Afia*, if not with a perfect coincidence of sentiment, at least with as much unanimity as can be naturally expected in a large body of men, each of whom must assert it as his right, and consider it as his duty, to decide on all points for himself, and, never to decide on obscure points without the best evidence, that can possibly be adduced our travels will this day be concluded, but our historical researches would have been left incomplete, if we had passed without attention over the dangerous races of borderers, who have long been established on the limits of *Arabia*,

Perſia, India, China, and Tartary; over the wild tribes reſiding in the mountainous parts of thoſe extensive regions; and the more civilized inhabitants of the islands annexed by geographers to their *Aſiatic* diſtinction of this globe.

Let us take our departure from *Idume* near the gulf of *Elanitis*, and, having encircled *Aſia*, with ſueh deviations from our course as the ſubject may require, let us return to the point from which we began; endeavouring, if we are able, to find a nation, who may clearly be ſhown, by juſt reaſoning from their language, religion, and manners, to be neither *Indians*, *Arabs*, nor *Tartars* pure or mixed, but always remembe ring, that any ſmall family detached in an early age from the parent ſtock, without letters, with few ideas beyond obje cts of the firſt neceſſity, and confequently with few words, and fixing their abode on a range of mountains, in an iſland, or even in a wide region before uninhabited, might in four or five centuries, people their new country, and would neceſſarily form a new language, with no perceptible tra ees, perhaps, of that ſpoken by their aneſtors. *Edom* or *Idume*, and *Erithra* or *Pbene*, had originally, as many believe, a ſimil ar meaning, and were derived from words denouing a *red* colour - but what ever be their derivation, it feems indubitab le, that a race of men were aneiently ſettled in *Idume* and in *Median*, whom the oldiſt and beſt Greek authors call *Erythreans*, who were very diſtinct from the *Arabs*, and whom, from the concurrence of many ſtrong teſtimonies, we may safely refer to the *Indian* ſtem. M. D'Herbelot mentions a tradition (which he treats indeed as a fable) that a colony of thoſe *Idumeans* had emigrated from the northern ſhores of the *Erythean* ſea, and failed across the *Mediterranean* to *Europe*, at the time fixed by chronologers for the paſſage of *EVANDER*, with his *Arcadians* into *Italy*, and that both *Greeks* and *Romans* were the progeny of theſe emigrants:

it is not on vague and suspected traditions that we must build our belief of such events; but NEWTON, who advanced nothing in science without demonstration, and nothing in history without such evidence as he thought conclusive, asserts from authorities, which he had carefully examined, that the *Idumean* voyagers "carried with them both arts and sciences, " among which were their astronomy, navigation, and letters, for in "*Idume*, says he, they had *letters and names for constellations* before the "days of Job, who mentions them" Job, indeed, or the author of the book which takes its name from him, was of the *Arabian* stock, as the language of that sublime work uncontestedly proves, but the invention and propagation of letters and astronomy, are by all, so justly ascribed to the *Indians* family, that if STRABO and HERODOTUS were not grossly deceived, the adventurous *Idumeans*, who first gave names to the stars, and hazarded long voyages in ships of their own construction, could be no other than a branch of the *Hindu* race in all events, there is no ground for believing them of a *fourth* distinct lineage; and we need say no more of them, till we meet them again on our return under the name of *Phoenicians*

" As we pass down the formidable sea, which rolls over its coral bed between the coast of the *Arabs*, or those who speak the pure language of ISMAIL, and that of the *Ajams*, or those who *mutter it barbarously*, we find no certain traces on the *Arabian* side, of any people, who were not originally *Arabs* of the genuine or mixed breed anciently, perhaps, there were *Troglodytes* in part of the peninsula, but they seem to have been long supplanted by the *Nomades*, or wandering herdsmen, and who those *Troglodytes* were, we shall see very clearly, if we deviate a few moments from our intended path, and make a short excursion into countries very lately explored, on the Western or *African* side of the Red Sea

That the written *Abyssinian* language; which we call *Ethiopick*, is a dialect of old *Chaldean*, and sister of *Arabick* and *Hebrew*, we know with certainty, not only from the great multitude of identical words, but (which is a far stronger proof) from the similar grammatical arrangement of the several idioms we know at the same time, that it is written like all the *Indian* characters, from the left hand to the right, and that the vowels are annexed, as in *Devanagarī*, to the consonants, with which they form a syllabic system extremely clear and convenient, but disposed in a less artificial order than the system of letters now exhibited in the *Sanskrit* grammar, whence it may justly be inferred, that the order contrived by PA'NINI or his disciples is comparatively modern, and I have no doubt, from a cursory examination of many old inscriptions on pillars and in caves, which have obligingly been sent to me from all parts of *India*, that the *Nagari* and *Ethiopian* letters had at first a similar form It has long been my opinion, that the *Abyssinians* of the *Arabian* stock, having no symbols of their own to represent articulate sounds, borrowed those of the black pagans, whom the Greeks call *Troglodytes*, from their primeval habitations in natural caverns, or in mountains excavated by their own labour they were probably the first inhabitants of *Africa*, where they became in time the builders of magnificent cities, the founders of seminaries for the advancement of science and philosophy, and the inventors (if they were not rather the importers) of symbolical characters I believe on the whole, that the *Ethiops* of *Meroe* were the same people with the first *Egyptians*, and consequently, as it might easily be shown, with the original *Hindus* To the ardent and intrepid Mr BRUCE, whose travels are, to my taste, uniformly agreeable and satisfactory, though he thinks very differently from me on the language and genius of the *Arabs*, we are indebted for more important, and, I believe, more accurate information concerning the nations established near
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the *Nile*, from its fountains in its mouths, than all *Europe* united could before have supplied, but, since he has not been at the pains to compare the seven languages, of which he has exhibited a specimen, and since I have not leisure to make the comparison, I must be satisfied with observing, on his authority, that the dialects of the *Gafots* and the *Gallas*, the *Agows* of both races, and the *Falashas*, who must originally have used a *Chaldean* idiom, were never preserved in writing, and the *Amboritic* only in modern times they must, therefore, have been for ages in fluctuation, and can lead, perhaps, to no certain conclusion as to the origin of the several tribes who anciently spoke them. It is very remarkable, as Mr BRUCE and Mr BRYANT have proved, that the *Greeks* gave the appellation of *Indians* both to the southern nations of *Africk* and to the people, among whom we now live, nor is it less observable, that, according to *EPHORUS*, quoted by STAABO, they called all the southern nations in the world *Ethiopians*, thus using *Indian* and *Ethiop* as convertible terms; but we must leave the gymnosophists of *Ethiopia*, who seemed to have professed the doctrines of BUDDHA, and enter the great *Indian* ocean, of which their *Afriank* and *Africans* brethren were probably the first navigators.

On the islands, near *Yemen*, we have little to remark they appear now to be peopled chiefly by *Mohammedans*, and afford no marks of discrimination, with which I am acquainted, either in language or manners, but I cannot bid farewell to the coast of *Arabia* without assuring you, that, whatever may be said of *Ommán* and the *Scythian* colonies, who, it is imagined, was formerly settled there, I have met with no trace, in the maritime part of *Yemen*, from *Aden* to *Mafkat*, of any nation who were not either *Arabs* or *Abyssinian* invaders.

Between that country and *Iran* are some islands, which, from their insignificance in our present inquiry, may here be neglected; and, as to the *Cards*, or other independent races, who inhabit the branches of *Taurus* or the banks of *Euphrates* and *Tigris*, they have, I believe, no written language, nor any certain memorials of their origin; it has, indeed, been asserted by travellers, that a race of wanderers in *Dyarbier*, yet speak the *Chaldaick* of our scripture, and the rambling *Turcomans* have retained, I imagine, some traces of their *Tartarian* idioms; but, since no vestige appears, from the gulf of *Perſia* to the rivers *Cur* and *Aras*, of any people distinct from the *Arabs*, *Perſians*, or *Tartars*, we may conclude, that no such people exists in the *Irāmas* mountains, and return to those which separate *Iran* from *India*. The principal inhabitants of the mountains, called *Parfici*, where they run towards the west, *Parvati*, from a known *Saſcrit* word, where they turn in an eastern direction, and *Paropamisus*, where they join *Imaus* in the north, were anciently distinguished among the *Brāhmaṇas* by the name of *Deradas*, but seem to have been destroyed or expelled by the numerous tribes of *Afgbars* or *Patans*, among whom are the *Balojes*, who give their name to a mountainous district, and there is very solid ground for believing, that the *Afgbars* descended from the *Jews*, because they sometimes in confidence avow that unpopular origin, which in general they sedulously conceal, and which other *Muslimans* positively assert, because *Hazaret*, which appears to be the *Aſareth* of *ESDRAS*, is one of their territories, and, principally, because their language is evidently a dialect of the scriptural *Chaldaick*.

We come now to the river *Sindku*, and the country named from it near its mouth we find a district, called by *Nearchus*, in his journal, *Sangada*, which M. D'ANVILLE justly supposes to be the seat of the *Sangamans*, a barbarous and piratical nation mentioned by modern travellers, and well known

known at present by our countrymen in the West of *India*. Mr MALET, now resident at *Pars* on the part of the *British* government, procured at my request the *Sangamans* letters, which are a sort of *Nageri*, and a specimen of their language, which is apparently derived, like other *Indian* dialects, from the *Sanskrit*; nor can I doubt, from the descriptions which I have received of their persons and manners, that they are *Pameras*, as the *Brabmanes* call them, or outcast *Hindus*, immemorially separated from the rest of the nation. It seems agreed, that the singular people, called *Egyptians*, and, by corruption, *Gypsies*, passed the *Mediterranean* immediately from *Egypt*; and their motley language, of which Mr GRELLMAN exhibits a copious vocabulary, contains so many *Sanskrit* words, that their *Indian* origin can hardly be doubted; the authenticity of that vocabulary seems established by a multitude of *Gypsy* words, as *angar*, charcoal, *caſhib*, wood, *par*, a bank, *bbu*, earth, and a hundred more, for which the collector of them could find no parallel, in the vulgar dialect of *Hindustan*, though we know them to be pure *Sanskrit*, scarce changed in a single letter. A very ingenious friend, to whom this remarkable fact was imparted, suggested to me, that those very words might have been taken from old *Egyptian*, and that the *Gypsies* were *Traglodytes* from the rocks near *Thebes*, where a race of banditti still resemble them, in their habits and features. but, as we have no other evidence of so strong an affinity between the popular dialects of old *Egypt* and *India*, it seems more probable, that the *Gypsies*, whom the *Italians* call *Zingares* and *Zinganos*, were no other than *Zingamans*, as M D'ANVILLE also writes the word, who might, in some piratical expedition, have landed on the coast of *Arabia* or *Africa*, whence they might have rambled to *Egypt*, and at length have migrated, or been driven into *Europe*. To the kindness of Mr MALET I am also indebted for an account of the *Boras*, a remarkable race of men inhabiting chiefly the cities of

Guyarat,

Gujarāt, who, though *Musulmans* in religion, are *Jesus* to features, genius, and manners: they form to all places a distinct fraternity, and are every where noted for address in bargaining, for minute thrift, and constant attention to lucre, but profess total ignorance of their own origin, though it seems probable, that they came first with their brethren, the *Afghans*, to the borders of *India*, where they learned in time to prefer a gainful and secure occupation, in populous towns, to the perpetual wars and laborious exertions on the mountains. As to the *Mopias* in the western parts of the *Indian* empire, I have seen their hooks to *Arabick*, and am persuaded, that, like the people called *Malays*, they descended from *Arabian* traders and mariners after the age of MUHAMMED.

On the continent of *India*, between the river *Vipasa*, or *Hypaphis*, to the west, the mountains of *Trisputra* and *Camarupa* to the east, and *Hemalaya* to the north, we find many races of wild people with more or less of that pristine ferocity, which induced their ancestors to secede from the civilized inhabitants of the plains and valleys: in the most ancient *Sanskrit* books they are called *Sacas*, *Ciratas*, *Colas*, *Pulindas*, *Barbaras*, and are all known to *Europeans*, though not all by their true names, but many *Hindoo* pilgrims, who have travelled through their haunts, have fully described them to me, and I have found reasons for believing, that they sprang from the old *Indian* stem, though some of them were soon intermixed with the first ramblers from *Tartary*, whose language seems to have been the basis of that now spoken by the *Moguls*.

We come back to the *Indian* islands, and hasten to those which lie to the south-east of *Silan* or *Taprobane*, for *Silan* itself, as we know from the languages, letters, religion, and old monuments of its various inhabitants,

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was peopled beyond time of memory by the *Hindo* race, and formerly, perhaps, extended much farther to the west and to the south, so as to include *Lancd*, or the equinoctial point of the *Indian* astronomers; nor can we reasonably doubt, that the same enterprising family planted colonies in 'the other isles of the same ocean from the *Malayadwipas*, which take their name from the mountain of *Malaya*, to the *Moluccas* or *Malicias*, and probably far beyond them Captain *FORREST* assured me, that he found the isle of *Bali* (a great name in the historical poems of *India*) chiefly peopled by *Hindo*, who worshipped the same idols, which he had seen in this province, and that of *Madburd* must have been so denominated, like the well known territory in the western peninsula, by a nation, who understood *Sanskrit*. We need not be surprised, that M D'ANVILLE was unable to assign a reason, why the *Jabadios*, or *Yavadwipa*, of *PTOLEMY* was rendered in the old *Latin* version the isle of *Barley*, but we must admire the inquisitive spirit and patient labour of the *Greeks* and *Romans*, whom nothing observable seems to have escaped. *Java* means *barley* in *Sanskrit*, and, though that word, or its regular derivative, be now applied solely to *Java*, yet the great *French* geographer adduces very strong reasons for believing, that the ancients applied it to *Sumatra*. In whatever way the name of the last-mentioned island may be written by *Europeans*, it is clearly an *Indian* word, implying *abundance* or *excellence*, but we cannot help wondering, that neither the natives of it, nor the best informed of our *Pandits*, know it by any such appellation, especially as it still exhibits visible traces of a primeval connection with *India* from the very accurate and interesting account of it by a learned and ingenious member of our own body, we discover, without any recourse to etymological conjecture, that multitudes of pure *Sanskrit* words occur in the principal dialects of the *Sumatrans*, that, among their laws, two positive rules concerning *sureties* and *interest* appear to be taken word for word.

word from the *Indian* legislators NA'RED and HA'RITA, and, what is yet more observable, that the system of letters, used by the people of *Rengong* and *Lampung* has the same artificial order with the *Devanagari*, but in every series one letter is omitted, because it is never found in the languages of those islanders. If Mr MARSOEN has proved (as he firmly believes, and as we, from our knowledge of his accuracy, may fairly presume) that clear vestiges of one ancient language are discernible in all the insular dialects of the southero seas from *Madagascar* to the *Philippines*, and even to the remotest islands, lately discovered, we may infer from the specimens in his account of *Sumatra*, that the parent of them all was no other than the *Sanskrit*, and with this observation, having nothing of consequence to add on the *Chinese* isles, or on those of *Japan*, I leave the farthest eastern verge of this continent, and turn to the countries, now under the government of *China*, between the northern limits of *India*, and the extensive domain of those *Tartars*, who are still independent.

That the people of *Potyid* or *Tibet* were *Hindus*, who engrafted the heresies of *Buduha* on their old mythological religion, we know from the researches of CASSIANO, who long had resided among them, and whose disquisitions on their language and letters, their tenets and forms of worship, are inserted by GIOAGI in his curious but prolix compilation, which I have had the patience to read from the first to the last of nine hundred rugged pages their characters are apparently *Indian*, but their language has now the disadvantage of being written with more letters than are ever pronounced, for, although it was anciently *Sanskrit*, and polysyllabick, it seems at present, from the influence of *Chinese* manners, to consist of monosyllables, to form which, with some regard to grammatical derivation, it has become necessary to suppress in common discourse many letters,

letters, which we see in their books, and thus we are enabled to trace in their writing a number of *Sanskrit* words and phrases, which, in their spoken dialect are quite undistinguishable. The two engravings in GEORGI's book, from sketches by a *Tibetan* painter, exhibit a system of *Egyptian* and *Indian* mythology, and a complete explanation of them would have done the learned author more credit than his fanciful etymologies, which are always ridiculous, and often grossly erroneous.

The *Tartars* having been wholly unlettered, as they freely confess, before their conversion to the religion of *Arabia*, we cannot but suspect that the natives of *Eigbir*, *Tancut*, and *Khatà*, who had systems of letters, and are even said to have cultivated liberal arts, were not of the *Tartarian*, but of the *Indian* family, and I apply the same remark to the nation, whom we call *Barmas*, but who are known to the *Pandits* by the name of *Brāhmaṇas*, and seem to have been the *Brachmans* of PTOLEMY; they were probably rambling *Hindus*, who, descending from the northern parts of the eastern peninsula, carried with them the letters now used in *Ava*, which are no more than a round *Nagari* derived from the square characters, in which the *Pali*, or sacred language of BUDDHA's priests in that country, was anciently written, a language, by the way, very nearly allied to the *Sanskrit*, if we can depend on the testimony of M DE LA LOUBERE, who, though always an acute observer, and in general a faithful reporter of facts, is charged by CARPANTUS with having mistaken the *Barma* for the *Pali* letters, and when, on his authority, I spoke of the *Bah* writing to a young chief of *Aracan*, who read with facility the books of the *Barmas*, he corrected me with politeness, and assured me, that the *Pali* language was written by the priests in a much older character.

Let us now return eastward to the farthest *Afianick* dominions of *Russia*, and rounding them on the north-east, pass directly to the *Hyperboreans*: who, from all that can be learned of their old religion and manners, appear like the *Messagetae*, and some other nations usually considered as *Tartars*, to have been really of the *Gotnick*, that is of the *Hindu* race, for I confidently assume, that the *Goths* and *Hindus* had originally the same language, gave the same appellations to the stars and planets, adored the same false deities, performed the same bloody sacrifices, and professed the same notions of rewards and punishments after death. I would not insist with M. BAILEY that the people of *Finnland* were *Goths*, merely because they have the word *þing* in their language, while the rest of it appears wholly distinct from any of the *Gotnick* idioms—the publishers of the Lord's prayer in many languages represent the *Finnish* and *Lapponian* as nearly alike, and the *Hungarian* as totally different from them, but this must be an error, if it be true that a *Russian* author has lately traced the *Hungarian* from its primitive seat between the *Caspian* and the *Euxine*, as far as *Lapland* itself, and, since the *Huns* were confessedly *Tartars*, we may conclude, that all the northern languages, except the *Gotnick*, had a *Tartarian* origin, like that universally ascribed to the various branches of *Sclavoman*

On the *Armenian*, which I never studied, because I could not hear of any original compositions in it, I can offer nothing decisive, but am convinced, from the best information procurable in *Bengal*, that its basis was ancient *Perian*, of the same *Indian* stock with the *Zend*, and that it has been gradually changed since the time when *Armenia* ceased to be a province of *Iran*—the letters in which it now appears are allowed to be comparatively modern, and, though the learned editor of the tract by CARPANUS, on the literature of *Ava*, compares them with the *Pali* characters, yet, if they
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be not, as I should rather imagine, derived from the *Pahlavi*, they are probably an invention of some learned *Armenian* in the middle of the fifth century. Moses of Khoras, than whom no man was more able to elucidate the subject, has inserted in his historical work a disquisition on the language of Armenia, from which we might collect some curious information, if the present occasion required it, but to all the races of men, who inhabit the branches of Caucasus, and the northern limits of Iran, I apply the remark, before announced generally, that ferocious and hardy tribes, who retire for the sake of liberty to mountainous regions, and form by degrees a separate nation, must also form in the end a separate language, by agreeing on new words to express new ideas; provided that the language, which they carried with them, was not fixed by writing, and sufficiently copious. The *Armenians* damsels are said by STRABO to have sacrificed in the temple of the goddess ANAITIS, whom we know, from other authorities, to be the NA'KH'D, or VENUS, of the old Persians, and it is for many reasons highly probable, that one and the same religion prevailed through the whole empire of CYRUS.

Having travelled round the continent, and among the islands, of Asia, we come again to the coast of the Mediterranean, and the principal nations of antiquity, who first demand our attention, are the Greeks and Phrygians, who, though differing somewhat in manners, and perhaps in dialect, had an apparent affinity in religion as well as in language—the Dorian, Ionian, and Eolian families having emigrated from Europe, to which it is universally agreed that they first passed from Egypt, I can add nothing to what has been advanced concerning them in former discourses, and, no written monuments of old Phrygia being extant, I shall only observe, on the authority of the Greeks, that the grand object of mysterious worship in that country

country was the Mother of the Gods, or Nature personified, as we see her among the *Indians* in a thousand forms and under a thousand names. She was called in the *Pbyrgian* dialect *Ma'*, and represented in a car drawn by lions, with a drum in her hand, and a towered coronet on her head her mysteries (which seem to be alluded to in the *Mosaic* law) are solemnized at the autumnal equinox in these provinces, where she is named, in one of her characters, *Ma'*, is adored, in all of them, as the great Mother, is figured sitting on a lion, and appears in some of her temples with a diadem or crown of turrets a drum is called *dindina* both in *Sanscrit* and *Pbyrgian*, and the title of *Dindymene* seems rather derived from that word, than from the name of a mountain. The *DIANA* of *Ephesus* was manifestly the same goddess in the character of productive Nature, and the *ASTARTE* of the *Syrians* and *Pbenicians* (to whom we now return) was, I doubt not, the same in another form I may on the whole assure you, that the learned works of *SELOEN* and *JASLOVSKI*, on the Gods of *Syria* and *Egypt*, would receive more illustration from the little *Sanscrit* book, entitled *Chandi*, than from all the fragments of oriental mythology, that are dispersed in the whole compass of *Grecian*, *Roman*, and *Hebrew* literature We are told, that the *Pbenicians*, like the *Hindus*, adored the Sun, and asserted water to be the first of created things, nor can we doubt, that *Syria*, *Samaria*, and *Pbenice*, or the long strip of land on the shore of the *Mediterranean*, were anciently peopled by a branch of the *Indian* stock, but were afterwards inhabited by that race, which for the present we call *Arabian* in all three the oldest religion was the *Affrian*, as it is called by *SELDEN*, and the *Samaritan* letters appear to have been the same at first with those of *Pbenice*, but the *Syriack* language, of which ample remains are preserved, and the *Punick*, of which we have a clear specimen in *PLAUTUS* and on monuments lately brought to light, were indisputably of a *Chaldaick*, or *Arabick* origin

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The seat of the first *Pheenians* having extended to *Idume*, with which we began, we have now completed the circuit of *Aisa*, but we must not pass over in silence a most extraordinary people, who escaped the attention, as BARROW observes more than once, of the diligent and inquisitive HERO-DOTUS. I mean the people of *Judea*, whose language demonstrates their affinity with the *Arabs*, but whose manners, literature, and history, are wonderfully distinguished from the rest of mankind. BARROW loads them with the severe, but just, epithets of malignant, unsocial, obstinate, distrustful, sordid, changeable, turbulent, and describes them as furiously zealous in succouring their own countrymen, but implacably hostile to other nations, yet, with all the softish perverseness, the stupid arrogance, and the brutal atrocity of their character, they had the peculiar merit, among all races of men under heaven, of preserving a rational and pure system of devotion in the midst of wild polytheism, inhuman or obscene rites, and a dark labyrinth of errors produced by ignorance and supported by interested fraud. Theological inquiries are no part of my present subject, but I cannot refrain from adding, that the collection of tracts, which we call from their excellence *the Scriptures*, contain, independently of a divine origin, more true sublimity, more exquisite beauty, purer morality, more important history, and finer strains both of poetry and eloquence, than could be collected within the same compass from all other books, that were ever composed in any age or in any idiom. The two parts, of which the Scriptures consist, are connected by a chain of compositions, which bear no resemblance in form or style to any that can be produced from the stores of *Grecian*, *Indian*, *Persian*, or even *Arabian*, learning. The antiquity of those compositions no man doubts, and the unrestrained application of them to events long subsequent to their publication is a solid ground of belief, that they were genuine predictions, and consequently inspired, but, if any thing be
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the absolute exclusive property of each individual, it is his belief, and, I hope, I should be one of the last men living, who could harbour a thought of intruding my own belief on the free minds of others. I mean only to assume, what, I trust, will be readily conceded, that the first Hebrew historian must be entitled, merely as such, to an equal degree of credit, in his account of all civil transactions, with any other historian of antiquity how far that most ancient writer confirms the result of our inquiries into the genealogy of nations, I propose to show at our next anniversary meeting, when, after an approach to demonstration, in the strict method of the old analysis, I shall resume the whole argument concisely and synthetically; and shall then have condensed in seven discourses a mass of evidence, which, if brevity had not been my object, might have been expanded into seven large volumes, with no other trouble than that of holding the pen; but (to borrow a turn of expression from one of our poets) "for what I have produced, I claim only your indulgence, it is for
"what I have suppressed, that I am entitled to your thanks."

OBSERVATIONS



*A Tā Moko Man
in his War Dress*

II.

OBSERVATIONS ON THE INHABITANTS OF THE GARROW HILL.

Made during a public Deputation in the years 1788 and 1789,

By JOHN ELIOT.

IN the month of September 1788 I was sent by Government to investigate the duties collected by the mountaineers, which bound the north-eastern parts of Bengal, and to ascertain the will of the people, who had hitherto known nothing of the law. Some scarlet cloth was given me by Government to reward them.

The mountaineers, who inhabit different parts of India, have been generally considered savages, equally unrestrained by law and morality, and watchful to take every opportunity of committing depredations on the low country, pillaging the inhabitants, and destroying their villages, whenever they could do so with impunity. At Bogra, however, it has been proved, that the hill-people, by good treatment and encouragement, may be in a great degree civilized and rendered at least peaceable and inoffensive, if not serviceable. My observation of the character and the conduct of the Garrows has induced me to believe the same good consequences may be expected from encouraging them, but I propose to relate in plain language what I experienced on my visit to them, and leave others to form their own judgment, and, as I am the first European, who has travelled among them, I shall also add a few observations on the country, and on what attracted my notice as being in any respect peculiar.

On drawing near the hills you have a beautiful sight of three ranges of mountains,

mountains, rising one above another; but on nearer approach they vanish, except the *Goraffers*, the lower range, in appearance insignificantly small. The verdure and rich land, however, fully recompense the loss, and, turn your eye which way you will, you see something to cheer the mind, and raise the fancy, in the numerous small villages round about, protected from the heat by a variety of trees interspersed.

The first pass I went to, was *Gbosgong*, situated on the west side of the *Nattee* river. Here a great number of *Garrows* reside at the foot of the pass in three villages, *Gbosgong*, *Gbonse*, and *Borack*. The head people of the villages are called *Boneabs*, a name used by the head *Rájás* in *Bengal*, when the king resided at *Gour*. Whence they derived this name, I could not learn and many other things, which might lead to discoveries, escaped my knowledge from the want of a good interpreter.

OODASSEY BOONEAH is looked on as the head man of this pass at present, having most influence with his sect, but the rightful chief is *Mowee*, a woman, and her power being, by established usage, transferrable by marriage to her husband, he ought in consequence to preside, but, from his being a young and silly man, the chiefship is usurped by **Oodassev**, and his usurpation is submitted to by *Mowee* and her husband. **Oodassev** however is by no means a violent or artful man. He is far from possessing a bad disposition, is a mild man, and by all accounts takes great pains to do justice, and keep up unanimity with his people.

The village *Gbosgong* is surrounded by a little jungle. On passing it, the village is opened to your sight, consisting of *Cheungs* or Houses from about thirty to 150 feet long, and twenty or forty broad.

These

These *Garrows* are called by the villagers and upper hill people *Council Garrows*, though they themselves, if you ask them, of what cast they are, will answer *Garrows*, and not give themselves any appellation of cast, though there are many casts of *Garrows*, but with what differences I had not time to ascertain.

The soil is of a fine black earth, here and there intermixed with spots of red earth its richness is plainly seen from the quickness of vegetation The rice is in many places equal to the *Benares* long rice. The mustard seed is twice as big as any produced in the pergannahs of *Bengal*, where I have been, and the oil it produces, is as superior to, as the size of its grain is greater than, any other The hemp is equally good, but, as to its superiority to what may be produced in other pergannahs, I am unable to speak with certainty as far as I can judge from my own observation, the sort brought to the *Calcutta* market, is not equal to what is produced on the borders of the hills The pasture for cattle may be classed next in quality to that of *Plaffy* plain, and this I infer from its being generally known, the *Sheerpour* and *Susung* ghee is nearly as good as that made at *Plaffy*

There are rivers at the several passes Those of note are the *Nattee*, *Mahareesee*, *Summafferry*, and *Mabadeo*. On the west side of the *Nattee* is *Gbosgong*, and on the east the *Suffoor* pass *Abrakamahad* or *Bygombarry* is on the east side of the *Mahareesee*, *Augbur*, on the east of *Summafferry*, and *Burradowarrab*, on the west of *Mabadeo* These rivers are all of a sandy and gravelly bottom, with much limestone and iron The *Mabadeo* has abundance of coals, the oil of which is esteemed in the hills as a medicine for the cure of cutaneous disorders, and is reputed to have been first discovered to the hill people and villagers by a *Fakeer* The mode of extracting the

oil is simple. A quantity of coals are put into an earthen pot, the mouth of which is stopped with long grass by way of strainer. This pot is put into a large deep pan, perforated at the bottom, so as to admit of the neck of the pot being put through it, the pan is supported upon bricks to prevent the neck of the pot from touching the ground, and also that a vessel may be placed under the strainer as a reservoir for receiving the oil as it drops. The pan is filled with dry cow dung, which is used as fuel, and extracts the oil in course of an hour.

There are but few sorts of fish in these rivers turtle are to be had in great numbers, and are always consecrated by sacrifice before they are eaten. The hill people are however fully compensated for the loss of fish in the rivers, by the great abundance they get from the neighbouring lakes.

A *Garraw* is a stout well-shaped man, hardy and able to do much work, of a surly look, flat *Cafri* like nose, small eyes, generally blue, or brown, forehead wrinkled, and overhanging eye brow, with large mouth, thick lips, and face round and short, their colour is of a light or deep brown, their dress consists of a brown girdle, about three inches broad, having in the centre a blue stripe, it goes round the waist, is passed between the thighs, and is fastened behind, leaving one end or flap hanging down before, about eight inches, sometimes it is ornamented with brass-plates, with rows of ivory or a white stone shaped like bits of tobacco-pipes, about half an inch long, the brass-plate is made to resemble a button, or an apothecary's weight, but more indented some have it ornamented with little bits of brass, shaped like a bell some wear an ornament on their bead about three or five inches broad, decorated in the same

same manner as the flap, servioig to keep their hair off their face, which gives them a wild fierce appearance Some tie their hair on the crown, in a loose careless manner, while others crop it close The *Booneabs* or chiefs wear a silk turhan, to the girdle they affix a hag containing their money and pawns, and also a net for holding the utensils with which they light their pipe bung near to it by a chain

The women are the ugliest creatures I ever beheld, short and squat in their stature, with masculine faces, in the features of which they differ little from the men Their dress consists of a dirty red cloth, striped with blue or white, about sixteen inches broad, which encircles the waist, and covers about three-fourths of the thigh It never reaches to the knee, and being but just long enough to tie above on the left side, part of the left thigh, when they walk, is exposed On their necks they have a string of the ornaments above described resembling tobacco-pipes, twisted thirty or forty times round, but negligently, without any attention to regularity; their breasts are exposed to view, their only clothing being the girdle abovementioned, to their ears are affixed numbers of brass rings, increasing in diameter from three to six inches I have seen thirty of those rings in each ear, a slit is made in the lobes of the ear, which increase from the weight of the rings, and in time will admit the large number stated This weight is however partly supported by a string, which passes over their heads, a tape three inches broad ties their hair, so as to keep it back from their foreheads, though generally it is tied with a string on the crown of the head The wives of the *Booneabs* cover their heads with a piece of coarse cloth, thirteen or fourteen inches broad, and two feet long, the end of which, with their hair, hangs down behind, flowing loose on their backs The women work as well as the men, and I have seen them carry

as great burthen. Their hands, even those of the wives of the *Bamwabs*, bear evident marks of their laborious occupations.

These people eat all manner of food, even dogs, frogs, snakes, and the blood of all animals. The last is baked over a slow fire in hollow green bamboos, till it becomes of a nasty dirty green colour. They are fond of drinking to an excess. Liquor is put into the mouth of infants, almost as soon as they are able to swallow, they have various sorts of spirits, but that mostly drunk is extracted from rice, soaked in water for three or four days before use. Their cookery is short, as they only just heat their provisions, excepting rice and guts, the first of which is well boiled, and the other stewed till they are black. Indeed excepting these, their animal food is eaten almost raw.

In times of scarcity many of the hill people subsist on the *Kebul*, which in growth is said to be like the *Palmira*, and the interior part of the trunk, when pounded and steeped in water, is an article of food, in so much as to be the common means of sustenance during a scarcity of grain. When boiled it is of a gelatinous substance, and tastes, when fresh, like a sugar cane those, who can afford it, mix rice with it. They also subsist on the *Kutku*, a sort of Yam, found in great plenty about the hills. I saw three sorts, though I could not learn they had any separate name. One has a number of buds on it, is said to be a cooling medicine, and is eaten boiled or baked. Some of them I brought with me from the hills, and being bruised in the basket used in bringing them from the hills, I cut off the rotten part, which I found to be of no detriment to their growth, although out of the ground. At Dacca I gave them to Mr RICHARD JOHNSON, who, I understand, delivered them to Colonel KYD, the superintendent of the Company's

Company's botanical garden, where, I hear, they have produced a very handsome flower. This plant was cultivated by the *Garrows*, nearly in the same manner, as we do potatoes in *England*; a bud being broken off to be sown for a plant. The *Garrows* say it yields, after it is dug out of the ground, and laid by for the ensuing season of cultivation (commencing immediately on the breaking up of the rains) from three to ten buds. Another sort of *Kutchu* grows at the tops of the hills, and is found by its sprout, which twists itself round the trunk and branches of trees. I have seen the sprout from ten to twenty feet high, the leaves have three segments like a vine leaf, but more pointed of deep green, and very small. The root is found from a foot to two feet and a half below the ground, is in shape tapering, of a reddish colour, and in length from five inches to a foot and half it is eaten roasted. The other species grows in the same manner, but is of a dirty yellow colour.

The houses of these *Garrows*, called *Chaungs*, are raised on piles, about three or four feet from the ground, from thirty to 150 feet in length, and in breadth from ten to forty, and are roofed with thatch. The props of the *Cbaung* consist of large *saul* timbers in the centre there are eight, and on the sides from eight to thirty over these are placed horizontally large timbers, for a support to the roof, and tied fast, sometimes with strings, but string is rarely used for this purpose, the tying work being mostly done with slips of grass or cane. The roof is neatly executed and with as much regularity as any of our Bungalow thatches. When I say this, however, I speak of the *Cbaungs* of the *Booneaks*. I went into few of the *Cbaungs* of the lower class. The roof consists of mats and strong grafts. The sides of the house are made from the small hollow bamboos cut open, flattened, and woven as the common mats are. The floor is made in the same manner,

ner, but of a stronger bamboo. The *Chaung* consists of two apartments, one floored and raised on piles as described, and the other without a floor, at one end, for their cattle; at the other end is an open platform, where the women sit and work. On one side also is a small raised platform, usually about six feet square, inclosed at the sides and open above here the children play in the centre of the *Chaung* they cook their viands, a space of about five feet square being covered with earth, on one side a little trap door is made in the floor, for the convenience of the women on certain occasions, which creates much filth under their *Chaungs*. Indeed a great part of their dirt is thrown under the *Chaung*, and the only scavengers I saw, were their hogs, but luckily for them, they have plenty of those animals.

Bugs cover their wearing apparel, of the same sort, as those which infest beds in England during my journey along the hills I suffered very much from them

The disposition of a *Garrow* could not be accurately known in the short time I had to observe it, yet my intercourse with them, which was of the most open nature, will, I think, allow me to say something of it.

Their fury looks seem to indicate ill temper, but this is far from being the case, as they are of a mild disposition. They are, moreover, honest in their dealings, and sure to perform what they promise. When in liquor they are merry to the highest pitch then men, women, and children will dance, till they can scarce stand. Their manner of dancing is as follows twenty or thirty men of a row standing behind one another, hold each other by the sides of their belts, and then go round in a circle hopping, on one foot, then on the other, singing and keeping time with their music, which

which is animating, though harsh and inharmonious, consisting chiefly of tomtoms, and brass pans, the first generally beaten by the old people, and the last by the children. The women dance in rows and hop in the same manner, but hold their hands out, lowering one hand and raising the other at the same time, as the music beats, and occasionally turning round with great rapidity. The men also exhibit military exercises with the sword and shield, which they use with grace and great activity. Their dancing at their festivals last two or three days, during which time they drink and feast to an excess, insomuch that it requires a day or two afterwards, to make them perfectly sober again, yet during this fit of festivity and drunkenness they never quarrel.

Marriage is in general settled amongst the parties themselves, though sometimes by their parents if it has been settled by the parties themselves, and the parents of either refuse their assent, the friends of the opposite party, and even others unconnected, go and by force compel the dissenters to comply; it being a rule among the *Garrows* to assist those that want their help, on these occasions, let the disparity of age or rank be ever so great. If the parents do not accede to the wish of their child, they are well beaten till they acquiesce in the marriage, which being done, a day is fixed for the settlement of the contract, or rather for a complimentary visit from the bride to the bridegroom, to settle the day of marriage, and the articles, of which the feast shall consist, as well as the company to be invited, and they then make merry for the night. The invitations on these occasions are made by the head man of a *Cbaung* sending a *pauw* to the inhabitants of another *Cbaung*, as they cannot invite one out of a *Cbaung* without the rest. The man who carries the *pauw*, states the purpose for which it is sent, and the next day an answer is made, if the invitation be accepted, but not

otherwise, as they never wish to give a verbal refusal, and, therefore, if no body returns the next day, the invitation is understood to be refused.

On the nuptial day, the parties invited go to the bride's house, it being the custom among the *Garrows* for the bride to fetch the bridegroom when the wine, &c are ready, and all the company arrived, they begin singing and dancing, and now and then take a merry cup, while a party of the women carry the bride to the river, wash her, and on their return home, dress her out in her best ornaments, this completed, it is notified to the company, and the music ceases then a party take up the wine, provisions, drums, pans, and a cock and hen, and carry them to the bridegroom's house in procession, the cock and hen being carried by the priest, after which, the bride follows, with a party of women, walking in the centre, till she arrives at the bridegroom's house, where she and her party seat themselves in one corner of the *Cbaung* near the door, the remaining visitors then proceed to the bridegroom's house, and the men sit at the further end of the room, opposite to the women, the men also again begin singing and dancing, the bridegroom is called for, but, as he retires to another *Cbaung*, some search is made for him, as if he were missing, and, as soon as they find him, they give a shout, they then carry him to the river, wash him, return, and dress him in his war dress, which done, the women carry the bride to her own *Cbaung*, where she is put in the centre, and, notice of this being brought to the visitors at the bridegroom's house, they take up the wine, &c and prepare to go with the bridegroom, when his father, mother, and family cry and howl in the most lamentable manner, and some force is used to separate him from them At last they depart, the bride's father leading the way, and the company following one by one, the bridegroom in the centre On entering the bride's *Cbaung*, they make a general

a general shout, and place the bridegroom on the bride's right hand, and then sing and dance for a time, till the priest proclaiming silence, all is quiet, and he goes before the bride and bridegroom, who are seated, and ask some questions, to which the whole party answer *Nummab*, or *good**, this continues a few minutes, after which, the cock and hen being brought, the priest takes hold of them by the wings, and holds them up to the company, asking them some questions, to which they again reply *Nummab*, some grain is then brought, and thrown before the cock and hen, who being employed in picking it, the priest takes this opportunity to strike them on the head with a stick, to appearance dead, and the whole company, after observing them a few seconds, call out as before, a knife being then brought, the priest cuts the anus of the cock, and draws out the guts, and the company repeat *Nummab*, after which he performs the same operation on the hen, and the company give a shout, and again call out *Nummab*. They look on this part of the ceremony as very ominous; for should any blood be spilt by the first blow, or the guts break, or any blood come out with the guts, it would be considered as an unlucky marriage. The ceremony being over, the bride and bridegroom, drinking, present the bowl to the company, and then they all feast and make merry.

I discovered these circumstances of the marriage ceremony of the *Garrow*s, from being present at the marriage of LUNCRESS, youngest daughter of the chief OODASSY, seven years of age, and BUGLUN, twenty-three years old, the son of a common *Garrow*, and I may here observe, that this marriage, disproportionate as to age and rank, is a very happy one for BUGLUN, as he will succeed to the *Booneahship* and estate, for among all the

* I suspect the word to be *Namab* or *falsus* and *severus*. J

Garrows, the youngest daughter is always heiress, and, if there be any other children, who were born before her, they would get nothing on the death of the *Boonab* what is more strange, if *Buglun* were to die, *Luncree* would marry one of his brothers, and, if all his brothers were dead, she would then marry the father and, if the father afterwards should prove too old, she would put him aside, and take any one else, whom she might chuse

The dead are kept for four days, burnt on a pile of wood in a *Dungy* or small boat, placed on the top of the pile, and the ashes are put into a hole dug exactly where the fire was, covered with a small thatch building, and surrounded with a railing a lamp is burnt within the building every night, for the space of a month or more; the wearing apparel of the deceased is hung on poles fixed at each corner of the railing, which, after a certain time (from six weeks to two months) are broken, and then allowed to hang downwards till they fall to pieces they burn their dead within six or eight yards of their *Chaungs*, and the ceremony is performed exactly at twelve o'clock at night, the pile is lighted by the nearest relation after this they feast, make merry, dance and sing, and get drunk This is, however, the ceremony to a common *Garrow* If it be a person of rank, the pile is decorated with cloth and flowers, and a bullock sacrificed on the occasion, and the head of the bullock is also burnt with the corps if it be an upper hill *Boonab*, of common rank, the head of one of his slaves would be cut off, and burnt with him, and if it happen to be one of the first rank *Foon abs*, a large body of his slaves fall out of the hills, and seize a *Hindu*, whose head they cut off, and burn with their chief The rail'd graves of *Booneabs* are decorated with images of animals placed near the graves, and the railing is often ornamented with fresh flowers.

Their

Their religion appears to approximate to that of the *Hindus* they worship MAHADÉ'VA, and at *Banjara*, a pass in the hills, they worship the sun and moon To ascertain which of the two they are to worship upon any particular occasion, their priest takes a cup of water and some wheat, first calling the name of the sun, he drops a grain into the water, if it sinks, they are then to worship the sun, should it not sink, they then would drop another grain in the name of the moon, and so on till one of the grains sink All religious ceremonies are preceded by a sacrifice to their god of a bull, goat, hog, cock, or dog, in cases of illness, they offer up a sacrifice in proportion to the supposed fatality of the distemper, with which they are afflicted, as they imagine medicine will have no effect, unless the Deity interfere in their favour, and that a sacrifice is requisite to procure such interposition

The sacrifice is made before an altar constructed as follows two bamboos are erected, stripped of all their branches and leaves, except at the extremity of the main stem, which is left a stick is fixed near the top of each, to which is tied, at each end, a double string, reaching to two side bamboos, about two feet out of the ground, with the tops split, so as to make a kind of crown, between the strings are placed bits of sticks of about a foot in height, at the distance of a foot from each other, or more, in proportion to the height of the bamboos The cross sticks thus form a square, with the perpendicular strings, and in every other square, cross strings are tied, beginning with the top square round the bamboos a space of six or eight feet square is cleared, and covered with red earth, and in front, at the distance of about six or more feet, a square of two feet is cleared, in the centre of which a small pit is dug, and spread over with red earth, at some distance from the altar, on the side nearest the hills,

two split bamboos are bent into an arch, with the ends in the ground, so as to form a covering, under this a small mound is raised, and a little thatched building erected over it, open at the sides, under which some boiled rice is placed. When thus much is prepared, the priest approaches the little pit, and the people assembled stand behind him. He then mutters something to himself, when the animal, intended to be sacrificed, is brought, and the head cut off by the priest over the pit, some holding the head by a rope, and others the body. If the head is not taken off at one blow, it is reckoned unlucky. The blood is collected in a pan, carried to the covered arch, with the head of the animal, and put by the side of the mound. A lighted lamp is then brought, and put near the animal's head, when the whole company bow to the ground, and a white cloth is drawn over the arch, it being supposed their god will then come, and take what he wants, a fire is also kept burning during the ceremony between the altar and arch. An hour after, the covering is taken off, the provisions therein placed, with the animal, are dressed for the company, and they make merry.

When a large animal is to be sacrificed, two staves are put by the side of the pit, so as to place the animal's neck between them a bamboo is tied under his neck to the staves, to prevent his head from falling to the ground. He is then stretched out by ropes, fixed to his legs, and his head is severed by the strongest man among them.

Their mode of swearing at *Gbosiegong* is very solemn the oath is taken upon a stone, which they first salute, then with their hands joined and uplifted, their eyes steadfastly fixed to the hills, they call on MAHAD'EVA in the most solemn manner, telling him to witness what they declare, and that

that he knows whether they speak true or false They then again touch the stone with all the appearance of the utmost fear, and bow their heads to it, calling again upon MAHADE'VA They also, during their relation, look steadfastly to the hills, and keep their right hand on the stone When the first person swore before me, the awe and reverence, with which the man swore, forcibly struck me, my *Mobarris* could hardly write, so much was he affected by the solemnity In some of the bills they put a tiger's bone between their teeth, before they relate the subject to be deposited others take earth in their hand, and, on some occasions, they swear with their weapons in their hands I understand their general belief to be, that their God resides in the hills, and, though this belief may seem inconsistent with an awful idea of the divinity, these people appeared to stand in the utmost awe of their deity, from their fear of his punishing them for any misconduct in their frequent excursions to the hills

Their punishments consist mostly in fines The *Booneahs* decide on all complaints, except adultery, murder, and robbery, which are tried by a general assembly of the neighbouring chiefs, and are punished with instant death As the money collected by fines was appropriated to feasting and drunkenness, I wished to see, if I could induce them to give over this mode of punishing, but they told me plainly, they would not allow me to interfere, yet, as I had been very kind to them, when a man was to be punished with death, they would let me know

When any thing particular is to be settled, they all assemble in their war-dres, which consists of a blue cloth (covering part of the back and tied at the breast, where the four corners are made to meet) a shield, and a sword, they sit in a circle, the sword fixed in the ground before

before them. Their resolutions are put into immediate execution, if they relate to war, if to other matters, they feast, sing, dance, and get drunk

Their chiefs debate the subject of deliberation, and their wives on these occasions have as much authority as the chiefs This I had an opportunity of seeing, when I settled the revenue they had to pay, having told them, they would be well protected from any oppression, while under me, and that no more should be taken from them, than was finally settled some of the chiefs wished to pay an inadequate sum, when Momee, wife to the principal chief, rose, and spoke for some minutes, after which she asked me if I declared the truth to them, and on my replying in the affirmative, they agreed to the revenue I demanded Sujanee, wife of another chief, then came to me, and told me I had heard what she suffered from the oppression of the *Zemindars*, and begged, with tears in her eyes, that I would get justice done to her I made a particular inquiry into her complaint, and made the *Darogah* of the pass restore her cattle, and so much confidence had they at last in me, that they requested I would make a fair division of their lands, which they would never suffer the *Zemindar* or his people to do

Their mode of settling their proportions of payments, &c is by sticks each of the inferior *Garrows* places as many sticks in a pan, as he can give of the article required the whole are then counted, and the deficiencies made up by the *Booneaks* all their accounts also are kept by sticks, as well as their agreements

I have before said, on occasions of illness, a sacrifice is made to the deity I endeavoured to find out what medicines they use, but I cannot say I have been

been successful in this material point, I imagine, however, they must have some valuable plants, from the many great cures that appear to have been effected in wounds. The *neem* leaf seems to be much used in inflammations, and blue vitriol is applied to fresh wounds; this last medicine appears to have been introduced by the natives of *Bengal*, charms and spells are common among the *Gallows*. The tiger's nose strung round a woman's neck is considered as a great preservative in child birth; they aver, it keeps off giddiness and other disorders consequent on this event. A woman for nearly a month before her time is not permitted to stir out of her *Cheung*; six days after delivery she and her child are carried to the river and bathed.

The skin of the snake, called the *Burravar*, is esteemed a cure for external pains, when applied to the parts affected.

Inoculation is common among the *Gallows*, but this appears to have been only of late years, and was introduced among them by JOYNARAIN *Zemindar* of *Sheerpour*, through the interference and recommendation of some of the hill traders, who, having been in the hills at a time when the *Gallows* were afflicted with this fatal disorder and dying without being able to assist themselves, persuaded the chiefs to send a deputation to the *Zemindar*, and he sent them his family doctor, who is represented to have been very capable, and, by his skill introduced inoculation among the *Gallows*, and this induced them to provide themselves yearly with an inoculator, whom they reward in the most liberal manner, and take as much care of, while he resides among them, as if he were their father. The inoculator is obliged to obtain from the *Zemindar* a *furnud* permitting him to go into the hills, and for which he pays a very handsome fee, but the *Zemindar* is very

cautious whom he permits to go into the hills to officiate on these occasions.

Among the *Garrows* a madness exists, which they call transformation into a tiger, from the person who is afflicted with this malady walking about like that animal, shunning all society. It is said, that, on their being first seized with this complaint, they tear their hair and the rings from their ears, with such force as to break the lobe. It is supposed to be occasioned by a medicine applied to the forehead, but I endeavoured to procure some of the medicine, thus used, without effect. I imagine it rather to be created by frequent intoxications, as the malady goes off in the course of a week or a fortnight, during the time the person is in this state, it is with the utmost difficulty he is made to eat or drink. I questioned a man, who had thus been afflicted, as to the manner of his being seized, and he told me he only felt a giddiness without any pain, and that afterwards he did not know what happened to him.

The language of the *Garrows* is a little mixed with the *Bengali*: a few words of it I annex, I had made a tolerable collection for a vocabulary, but unfortunately I lost it, by one of my boats sinking in the *Brahmapooter*.

To drink,	ring,bo
cat,	cha,such
bathe,	ba,boo,ah
wash,	fu,fuck
fight,	den,juck
wound,	inajuck
come,	ra,ha,fuck

go,

go,	ree
call,	gum,ma.
sleep,	see,suck.
run,	ca,tan,juck
bring,	rap,pa
sit,	a,jen,juck
a man,	mun,die
a woman,	mee,che,da,rung
a child,	doočč
head,	see,kook
face,	moe,kam
nose,	ging
mouth,	chu,chul
eye,	n ok,roon
ear,	ner,chil
hair,	le,mil
hand,	jauck
finger,	jauck,see
back,	bick,ma.
foot,	ja,chuck.
fire,	waul
water,	chee
house,	nuck
tree,	ber
rice,	my,run
cotton,	caule.
hog,	wauck
cow,	ma,shu

wine,	p2,ta,ka
salt,	foom.
cloth,	ba,ra.
dog,	aa,chuck.
plenty,	gun,mauek
good,	num,mah
sword,	dig,rec
shield,	too,pee.
grafs,	cau,puo.

At the foot of the hills reside a cast of people called *Hayins*, their customs nearly resemble the *Garrow*, in religious matters they partake more of the *Hindus*, as they will not kill a cow their habitations are built like the houses of the ryotts in general, but are better made, enclosed with a court-yard, kept remarkably neat and clean, the railing made of hamboos split, flattened, and joined together, the streets of their villages equal the neatness of their houses. The men are of a dark complexion, well made and stout, their face nearly resembles the *Garrow*, though rather of a milder look, their dress is the same as that of the head peasants in *Bengal*, consisting of a *Dootee*, *Egpausab*, and *Pugree*, or waist-cloth, mantle, and turband

The women are remarkably neat and clean their dress consists of one cloth, made to go near twice round the body, and to hang in folds, down to the ankle, covers their breasts, and passes under their arms, and the ends are tucked in as the waist-cloth of the natives of *Bengal* their hair is tied on the crown, and they have ear rings in the same manner as the *Garrow* women, but no neck ornament

This is the sum of the observations, which my short stay with the inhabitants of the *Garrow* hills enabled me to make on their manners and customs. I have written separately an account of my journey at the foot of the hills to the different passes, where their trade is carried on, from which some further information may be derived of their conduct and character, but I am conscious that my remarks describe them but imperfectly, and found my only hope of their proving acceptable on the people, to whom they relate, having hitherto been wholly unnoticed they may also perhaps lead to more accurate inquiries hereafter.

TO THE PRESIDENT.

DEAR SIR,

I NOW have the pleasure to inclose a copy, written with a stylus on five palmyra-leaves, of the engraving on copper-plates preserved in the great pagoda of *Cneyvaram*: the language is the *Devavam*, and the character, *Devanagari*. Two persons only at this place can read and expound them: they contain an account of the division of lands, &c in this country — Thus have I taken the liberty to trouble you with matters, which may, or may not, prove of consequence: they, who are able to judge of them, must determine. Should any good arise from these communications, my merit will be only that of the slave, who digs from a mine the rough diamond, which others, of superior skill and capacity, cut and polish into its full lustre and value.

I am, DEAR SIR,

Your most obedient humble servant,

Cneyvaram,
April 7, 1791

ALEXANDER MACLEOD

III.

A ROYAL GRANT OF LAND IN CARNATA.

COMMUNICATED BY ALEXANDER MACLEOD, Esq.

And translated from the Sanscrit by the Printer.

Prosperity attend you!

Adoration to GANESA!

S T A N Z A S

1 ADORED be the God SAMBHU, on whom the city of the three
worlds rested in the beginning as on its main pillar, and whose
lofty head is adorned with a crescent, that kills all resembling the point of
a waving Chamara!

N O 5 E

The comparison is taken from the image of an Indian prince, Tanned by an officer, who stands
behind him, with the tail of a *Chamara* or wild cow, the hairs of which are exquisitely fine, and
of a pale yellow tint. SAMBHU IS MAHA DEVA

2 May the tusk of that boar, whose form was assumed in sport by
HERI, when the railed earth was his gorgeous umbrella, with Hemadri (or
the golden mountain) for the ornament of its top, be a staff to keep you
secure!

N O 6 E

VI R斧V, in his third incarnation, is allegorically represented as a boar the symbol of strength,
supporting our globe on his tusk, which is here compared to the staff of a *Cb'hatra*, or Indian um-
brella. The *Cb'hatras* of rich men have an ornament of gold on their summits, called a *Calya*,
to which the royal bard, who wrote the grant, compares the mountain *Sumeru*, or the North pole

3 May the luminous body of that God, who, though formed like an elephant, was born of PA'RVATI, and is revered even by HERI, propitiously dispel the gloom of misfortune!

NOTE

The bodies of the Hindu gods are supposed to be an *ethereal substance* resembling light, and GANESA, or the Divine Wisdom personified, is represented with the head of an elephant his mother was the daughter of the mountain Himalaya This couplet is in the style called *yamaca*, where some of the words have different meanings, but are applicable, in all of them, to the rest of the sentence thus *Agnja*, or *mountain born*, may signify the goddess PARVATI, but it also means *not a female elephant*, and HERI, or VISHNU, may be translated a *lion*, of which elephants are the natural prey

4 There is a luminary, which rose, like fresh butter, from the ocean of milk churned by the gods, and scattered the gloom from around it

NOTE

After the usual stanzas, called *mangala*, or *auspicious*, we are presented with the pedigree of the donor, beginning with the Moon, who, in the second incarnation of VISHNU, was produced from the sea of milk A comparison of the moon to butter must seem ridiculous to Europeans, but they should consider, that every thing, which the cow produces, is held sacred by the Hindu, and the simile is consistent with the allegory of a milky ocean churned by the deities

5 The offspring of that luminary was BUDHA, or the Wise, with reason so named from his unequalled acts of devotion and eminent virtues the son of BUDHA was PURU'RAVIS, by the force of whose arm the lives of his foes were destroyed his son was A'VAS, his, NARASHA, his, the hero YAYA'TI, famed through the world in battle, and from him, by his happy consort DEV'VATI'S'NI, came TR'VATI, equal to a God

NOTE

This pedigree is conformable to the *Puranas* BUDHA was probably an old philosopher and legislator, highly revered, while he lived, and supposed after his death to preside over the planet MERCURY, while his father (if that be not an astronomical fable) was conceived to be regent of the Moon he gives his name, like the WOOLY of the north, to the fourth day of the week The original epithet of the last king, named in this verse, is *Vasumitta*, or *equal to a *Vasu**, but the jingle of syllable, which the Indian poet meant as a beauty, is avoided in the translation A *Vasu* is one of the eight *divinities*, who form a *gana*, or assemblage, of Gods, and there are nine of those *ganas*

6 In his family was born De'vaci'j 'ki, and in his, Timma, a sovereign celebrated among those of equal descent, like Vrishni among the children of Yadi.

NOTE

If T's'orinda be the true reading in the second hemistich, it must be the name of a kingdom but we must beware of geographical errors, lest the names of countries, which never existed, should find their way into maps. YADU was another son of YAYATE, and KRISHNA descended from him through Vrishni, whence the Shepherd God received his name, and Varshya.

7 From him sprang Bhuccamā'lā'ki, a ruler, who cherished the world, a gem on the head of kings, not spreading terror around, but gleaming with undiminished brightness.

8 He lived with delight, and De'vaci'nandana, the king who gave felicity to mankind, sprang from him, like the God of Love from the lotus of De'vaci'.

NOTE

CALADDEVA or the God of Love, was born in one of his incarnations as the son of KRISHNA, whose real parents were De'vaci and VISUDEVĀ. In that birth CALA took the name of Pātumha and was father of AKRUDĀKI, whose adventures with Usha are the subject of a beautiful tale and a very interesting drama.

9 In many places, of which Ramesvara was the first, renowned for various exertions of virtue, he distributed, as the law ordains, with a joyful heart again and again, a variety of gifts around the shrines of the deities, returning such fame on earth, that the inhabitants of the three worlds expanded it in triumphant songs.

NOTE

Rāmavāra near the southern extremity of the Indian continent, received its name and finally became

the *swarub* incarnation of VISHNU in the form of RAMA This *amit* couplet is written in a singular metre, with rhymes in the middle of each division

Vividha sueritōd dāmī rāmī swara pramot'hē mahar,
 Muditahṛdaya jphānū bāhān vydabata ya'ha vidhi
 Vibudhaperitō nana dāmī niyah bhuvī shodāsī,
 Trubhuvanajanōd gītam sp'kītam yasah panaruddhayān

If *shādā* be the correct reading, it means a sacred bathing-place, and if *śodāsa* be properly written at the end of the third line, it may imply, that the royal donations were made to sixteen temples, or that the principal donations were sixteen

10 He shone forth conspicuously, having rapidly bound the *Caverī*, by raising a bridge over that receptacle of tumultuous waters, and having, by the strength of his arm, made JIVAGRAHA captive in battle, he appointed that kingdom, of which the name begins with *Sriranga*, as the feudal territory of his prisoner, but subject to his own dominion paramount he was praised, even to the end of his career, by the three peopled worlds, who heard the whole extent of his fame

NOTE

JIVAGRAHA seems to be the proper name of a prince, whose dominions lay beyond the *Caverī* the word means the *Seizer of Life*. Among the many epithets of the god SIVA we find RĀMA, and *Srīranga pātan*, or a city dedicated to him, is the capital of *Māṭeṣvāra*, so called from another name of the deity Those appellations are to some measure preserved to this day, but the ancient name of *Travencore* was *Mallāra*

11 Having conquered the regions of *Chera*, *Chola*, and *Pandyā*, subdued the king MADHURIVALLABHA, whose chief ornament was his loftiness of mind, taken VI'RYO'DAGRA prisoner, vanquished the king GAJAPETI, or Lord of Elephants, and other sovereigns, he became universally celebrated from the northern banks of *Ganga* to *Loncā* (the equinoctial point) from the verge of the first, or eastern, to that of the last, or western mountain, and placed his awful behest, like a chaplet of flowers, over the heads of the mightiest potentates

NOTE.

NOTE

Two Brahmins, who perused this compleat, proposed to read *Pindya*, of which they had before heard, instead of *Pasya*, which appears in the transcript. Had *Madhura* been written instead of *Madhuri*, there could have been little doubt, that it meant one of the southero kingdoms: one of my *Pandits* thinks, that it means *Madura*.

12 From that chief of lion-like men, by two queens *TIPWA'JI'* and *NAGARA'*, as from *DASARAT'NA* by the divine *CAUSALYA'* and *SUMITRA'*,

13 Sprang two valiant, yet modest, heroes, like the two princees *RAMA* and *LAESHMANA*, named *VIRANRISINHENDRA* and *CRISHNARAYA*, both lords of the earth

14 The famed *VIRANRISINHA*, having taken his seat in *Vijayanagar*, on a throne blazing with gems, far surpassed in glory and policy the ancient kings *NRICA*, *NALA*, *NAHUSHA*, and, consequently, all other monarchs on earth: from the southern bridge to *Sumeru*, the mountain beautifully extended on this globe, and from the eastern, to the farthest extremity of the western, hills, he dwelled in the hearts of mankind, and governed his realms with mild sway.

NOTE

All the kings, named in the three preceding stanzas, are celebrated in the heroic poems of *India*; and *Vijayanagar*, or the *City of Conquest*, is very generally known. The epithet *avanishasamabhi*, which, if it be the fifth case, agrees with *Sumeru*, may agree, in the first case, with the hero, and signify *ex-plauded by the son of the earth*, that is by *MANGALA*, or the planet *MARS*, who gives his name to the third day of the *Indian* and *Geibic* weeks. *TRIVEDI SERVODU* contends, that it means, *praised by the sons of the earth, or by all men born on it*.

15 He offered many presents in the Golden Court, in the temple of the three-eyed God, in the city of him, whom *CA'LAHASTI'* owns as her lord,

on the mountain *Vencata*, in *Casibi*, on the two mountains of *Sri* and *Sína*, in the great shrine of *Hesihera*, at *Sagaresangama*, *Sriranga*, *Cambba-cóna*, *Niverti*, and *Mabazandi*, that place of pilgrimage, by which the gloom of sin is dispelled

16 At *Gocarna*, at *Rá'ma's* bridge, and in numberless places famed in this world for their virtue, the waters of the sea were dried by the dust scattered from the hoofs of his galloping steeds, and the earth herself was oppressed and disturbed by the God, who grasps the thunder bolt, and who felt pain from the obstruction of the ocean, until multiplied force was restored to the world by the abundant streams of his immense liberality

NOTE

The holy places, enumerated in these two stanzas, are all well known to the *Pandits*, except *Nuerti*: the correctness of the reading may, therefore, be suspected. *Hébala*, which my *Nagarí* writer pronounces to be the name of a river, and which one of my three *Pandits* knows to be a place of pilgrimage, appears on the palm leaf, but *Sigara* is written above it. If two distinct places are intended, we find fifteen in all, agreeably to the *nasthi* stanza. The first meridian of the *Hindus* passes through the city of *Ujjayini*, of which we know the position, but, as *Lancá* therefore, falls to the west of *Silán*, which *Rá'ma's* bridge seems to mark as the kingdom of *Rávaná*, the Indians believe that the island had formerly a much larger extent, and it has been asserted, that appearances between *Silán* and the *Maldives* in some degree justify that belief. *Maldives* is, most probably, a corruption of *Malejáhuropa*, from the promontory of *Malaya* on the continent of *India*.

In the following verses, which I received from a venerable astronomer, *Cánchí* also appears in the first meridian, and *Ujjayini* seems distinct from *Abanti*, though some authors assert, that they are one and the same city

Bhúmedhyá réc hí canacadrálance
medhyáś'hadeshá cula varṣagulmáu,
Canchí, sárah sunnilutam, curuñam
cshetram tat'ha pajejançapýabanti,
Sráchálaschojjayini che deva
canyá che róbitaca gargarátan

" The places in the meridian line between the golden mount and *Lancá*, are *Patia*, *Galma*, *Cánchí*, *Sannib tasarab*, *Curuebela*, *Pajjana*, *Abanti*, *Súcarala*, *Ujjayini*, *Devacanyá*, *Róbitaca*, *Gargardí*"

17. The gifts, which he spread around, were 1. A *Brahmnda*, or Mundane Egg; 2. A Circle of the Universe, 3. A vase representing the five elements, 4. A Cow formed of gems, 5. A figure of the Seven Seas, 6. Two Sprigs from the Tree of Ages, 7. A golden CA'MADHE'NU, or celestial Cow, 8. A Terrestrial Sphere made of gold, 9. A Chariot and Horses of the precious metals, 10. A man's weight of Gold, 11. A thousand images of Cows, 12. A golden Horse, 13. An image of BRAHMA, 14. A golden Car, 15. A Plough of Gold, complete in its five parts, 16. A Car drawn by Elephants of the same metal

N O T E.

If all this be not a wild poetical exaggeration, and if such presents were often made by the *Hindu* princes, the *Moguls*, who soon after conquered most of the southern provinces, must have plundered the *Hindu* temples of immense treasures

18. He was eminently wise, and ruled with undiminished magnificence; and, when he ascended, with the cordial acquiescence of INDRA, to a celestial mansion, leaving behind him the reputation of a king, who resembled in his great qualities, that ruler of the firmament

19. Then the king CRISHNARA'YA, with irresistible power, bore the round earth on his arm like a bracelet of gems

N O T E

This prince, the donor of the land, was probably the younger brother of VI'RANRESINHA, who died, it seems, without male issue

20. The Gods had apprehensions, in the beginning of time, that the glory of so great a monarch would rapidly diffuse one vast blaze over the universe, and leave them without marks of distinction thence it was, that

PURA'RI

PURA'R^I assumed a third eye in his forehead; PEDMA'CSHA, four arms; ATMA'BHU, four faces; that CA'L^IT held a cimeter in her hand, RAMA', a lotos flower, and VA'NI^I, a lyre.

N O T E

The six names in the text are appellations of the Gods MAHA DEVA, VISHNU, BRAHMA, and the Goddesses DURGA, LACSHMI, SEREWATI; they signify, in order as they occur, the foe of Pura or Tripura, the Lotos-eyed, the Self-existing, Female Time, the Delightful, and Speech

21. In the midst of his assembled foes, he darts a consuming fire kindled by his wrath Oh! what said I? He dries up the series of seven oceans with the dust and sand of the whole earth trampled on by the cavalry of his numerous armies, and presently forms a new range of seas, blazing with his measureless glory, by the unbounded streams of those noble gifts, among which the first were a Mundane Egg and a golden figure of Meru

22 " May you long enjoy entire here below the " felicity and wealth bestowed on you by me!" Thus blessing mankind, and well knowing the general obstacles to an ascent in the car of the sun towards the mansion of the gods, he distributed in all regions of the world those obelisks, which confer celebrity, and on which encomiastic verses are engraved by the Goddess of Abundance herself, that they might become the lashes of whips to quicken the horses of the mountains

N O T E

The extravagant imagery in this couplet is connected with the old Indian custom of raising pillars to perpetuate the memory of great events, and with the belief of the Hindus, that the souls of good men pass through the sun to their seat of happiness Although the Columns of Victory, as they are called, were monuments of kingly pride or of courtly adulation, yet the poet intinuates, that the donor intended to facilitate a passage to heaven for those whom he had enriched on earth, and the mountains are animated, to become the horses of the sun's car, and to be lashed by the royal obelisks.]

Other

Other columns were erected, perhaps, as *Gnomes*, and others, possibly, to represent the phallus of *ISWARA*, but those called *Jyotishambas*, or *Pillars of Victory*, some of which remain to this day with metrical inscriptions, are most frequently mentioned by the ancient poets of *India*.

23. He proceeded continually, as the law prescriber, for the attainment of greatness and prosperity, to all the terrestrial seats of the Gods and places of pilgrimage, the first of which were *Canchi*, *Srisaila*, mount *Sona*, *Canacabadda*, or the Golden Court, and *Vencatadri*, where he dispensed many offerings, as a man's weight of gold, and the like, together with all the smaller oblations, which are specified in the *A'gama*.

N O T E

The *A'gama* is a mysterious book, or set of books, part of which has been communicated to me by a *Sanyasi* of *Mathura*—it is so named, because it is believed to have come from the mouth of *SIVA*, as the *Vedas* proceeded severally from the four mouths of *BRAHMA*. The same word means also the *Veda*.

24. When he is enraged, he becomes a rod to punish guilty sovereigns when he assumes the arm of *SE'SHA*, he acts as the chief preserver of this globe—he smiles with a placid cheek, when just princes address him, but rages in battle, when he relieves oppressed nations who ask his protection.

N O T E

SE'SHA is the king of Serpents, the couch of *VISHNU*, and the symbol of Eternity. The measure of this rhymed couplet is dactyl, and each of its four divisions begins and ends with a similar sound, as,

*R̥ibha cr̥itah pretiparsh'hiva danda
T̥ibha cr̥idart'hishu yo rāma chanda*

25. Justly is he styled *Rajadhr̥aja*, since he is the supreme ruler of rulers, offering a mild check to the princes of *Muru*, but filling other kings with terror.

NOTE

The phrase *rājarāganda* occurs both in this and in the preceding stanza. *Rāja* means a king, not in *Saṃskrit*, but in a popular idiom, and the whole phrase may be a title in the vulgar dialect of *Cārūḍa*. It is here preceded by *Māra*, which we shall find again towards the end of the grant, and which may, or may not, be the name of a country. Not one of the three *Pandits*, who were consulted on the meaning of the words *Māra* and *Rāganda*, could throw any light on them; except that *Māra* is a territory, of which the derivative is *Māravā*.

26. He is a deliverer of those *Hindu* princes, who act like beneficent genii, but a destroyer of those who rage like fierce tigers thence he receives due praises, with the title *Virapratapa*, or the glory of heroes, and other splendid epithets

NOTE

The word *Hindu* is applied likewise in a verse of *CA LINGA* to the original inhabitants of this country, but the *Pandit* infers, that it is not *Saṃskrit*. Since the first letter of it appears to be radical, it cannot be derived from *Indu*, or the moon, but, since a sibilant is often changed into an aspirate, it has been thought a variation of *Sindhu* or *Indus*. To that etymology, however, we may object, that the last consonant also must be changed, and that *Sindhu* is the name of a river, not of a people.

27. He is revered by the kings of *Anga*, *Benga*, *Calinga*, and others, who exclaim, "Look on us, mighty potentate! Live, and conquer!"

NOTE

Anga was the ancient kingdom of *Cārūḍa*, including the district of *Bhagalapura*. To the east of *Ganga*, or the *Land of Sugar*, to which we give the name of *Bengal*, lies *Benga*, properly so named. *Calinga*, a word known to the Greeks, is the country watered by the *Godavari*.

28. Exalted with praises by the wise, the king CRISHNARA'YA sits on a throne of gems in *Vyayanaṅgar*, surpassing in the practice of moral virtue NṛIGA and other monarchs from the centre of the eastern, to that of the western, mountain, and from *Hemadri* to the southern bridge, he shines with transcendent glory, dispensing riches and felicity through the world.

39. One thousand four hundred and forty-eight years of the *Sacabda*, or era established in memory of *SA'LI'YA'HASA*, being elapsed;

go In the year *Vyasa*, in the month of *Pusya*, when the sun was entering *Macara*, in the dark fortnight, on the day of *Bhairuv*, and on that venerable *tihi*, the tenth of the moon;

31. Under the constellation *Vishabha*, at a time productive of good fortune, on the banks of the river *Tungabhadra*, near the temple of the God with three eyes,

NOTE

The date of the grant follows the genealogy of the donor, and precedes that of the donee, after which comes a description of the land granted, and the religious tenure by which it was to be held. The *Sacabda* began in Y C 78, and the grant was made in Y C 1526, the very year in which *Bava* took possession of *Dibli*, or 264 years ago; for, by the almanack of *Navadwipa*, the first of *Vaisakha* 1712 Y S answers to 11th April 1790 Y C. The cycle of sixty is divided into sets of twenty years, each set being sacred to one of the three divine attributes, and *Pusya* is the 20th year of the cycle, or the last in the part allotted to *Brahma*. *Mater* is the sign of *Capricorn*, and *Pusya*, the 8th lunar mansion. *Bhairuv* was the father of *Sucra*, who presides over the planet *Venus*, and is properly named *Bha'rigava*, but the day of *Bhairuv* means Friday.

32. That temple, where priests, who have aimed at piety towards *Iswara* as their only grandeur, and who shine only with the same of eminent holiness, fix their heart on the godhead alone,

33. Him, who is an ornament of *AGASTYA*'s race, and whose peculiar studies are the *Sacbas*, or branches, of the *Yajurveda*, whose father was distinguished on earth in this age of *Cala*, or contention, by the surname of *Raya*,

34. Born in the family of *TAMVA*, Sri' *AILLAPA BHATTA*, furname

Santbyanayata, or chief teacher of the *Sāṅchya* philosophy (thus men openly declare his name, his race, and his virtue),

35 Him the king has appointed the dispenser of nectareous food even here below, to those pious students, and, in like manner, his sons and son's sons to an age without end.

N O T E

ACASTYA was an ancient sage, now believed to preside over the star *Campu*

36 The land called *Srijayacunda* by the inhabitants of the district of *Chola*, that named *Meyscota* in the principality of *Chandragiri*, that known in *Ambinars* by the name of *Malaca*

N O T E

The couplets, containing a description of the land, are so indistinctly written, that the grammatical construction of them can hardly be traced. The first letter of *Meyscota* may belong to the preceding word, and an entire hemistich seems in this place to be omitted

It may here be remarked, that this whole grant is conformable to the rules of YAGOTAWALCYA, in whose work we find the following verse:

*Darvūk bhūmim abendubam ve cī'ruva lī'byanis cārayet,
 agdīmbhadrauripati periyayanya parl'hīwab,
 Padiwa tēwraphātū ve fwāmedropetichibnitas
 abbilé 'hyatmanā vanfydnāmananchemahibpetib
 Pretigraberimanā dēnack'bēdoparivernasā,
 fwābofacklafompannan sajanam cārayeffbiras*

- * Let a king, having given land, or assigned revenue, cause his gift to be written, for the information of good princes, who will succeed him, either on prepared cloth, or on a plate of copper,
- * sealed above with his own signet: having described his ancestors and himself, the dimensions or
- * quantity of the gift, with its metes and bounds, if it be land, and set his own hand to it, and
- * specified the time, let him render his donation firm."

37. Land, situated to the east of *Tirumapura*, *Cayómaca*, and so forth, and the two villages *Cosáru* and *Cóbila*.

38. Placed to the south of *Paleopúryba* and *Hulk*, and to the west of the town called *Parunder*;

39 To the north of *Berupù* and *Purapáca*, including the town which has the name of *Svabaliapura*, or that of SIVA's adorers,

40 With another propitious name derived from the four sacred hearths (*Chatusvedi*) of the delightful *Cbilo*; together with the charming town of *Góvardapuri*.

41. Where eleven *Brahmans* are to water one *Antra* tree, and to worship the God *Rudra* by day and by night after the prescribed acts of devotion);

42 And the smaller town, called *Chaitupacá*, ever abundant in grain, inhabited by men eminently learned, in the great principality of *Paravuru*,

43 A place to be honoured by all, marked on all sides by four distinct boundaries, surrounded with rivulets formed by good genu, the pebbles of which are like gems carefully deposited

44. Viewed with delight by the distant eye, fit to be enjoyed by destined, graced with trees exquisitely beautiful; having the advantage also of ponds, wells, and pools of water with raised banks,

45. Frequented by officiating priests and attendants, with subdued passions and benevolent hearts, by devotees of different classes, and by travellers, who know the *Veda*, and converse with copiousness

46 All the land before mentioned has the great prince CRISHNADE'VA, worthy of reverence from the wise, given with serene joy, having first diffused a stream of gold, silver, and gems.

47 Such was the decree of CRISHNAR'A'TA, to whom belongs the whole earth celebrated by the royal bards; that bountiful king, who is the source of all the wealth possessed by the bards of MURU,

48 By the command of the great Rāya CRISHNADE'VA, the president of his council proclaimed this donation to MĀTRA, or ISWAKA, and his command is here engraved on plates of copper.

49 The artist SRI VI'RAVA CHA'RVA, the son of MALLANA, wrote on copper this grant of the great prince CRISHNADE'VA.

50 As between a gift of land and the confirmation of it by the successors of the donor, the confirmation is meritorious than the gift: by the gift, a king attains a feast in heaven, by the confirmation, a feast from which he never can fall

51 The confirmation of a gift by another prince has twice the merit of a gift by himself, but the resumption of land granted by another makes even his own gift fruitless.

52 He who refumes land given either by himself or by another, becomes a worm in ordure for successive births through a period of sixty thousand years.

53 Land, granted for virtuous purposes, is in this world the only sister of kings, and consequently must not be enjoyed by them, nor taken by them in marriage

54 "This is the univeral bridge of virtue for princes, and must be repaired by you from time to time" thus doth RA'MACHANDRA exhort again and again the sovereigns of the earth, both those who now live, and those who are to reign hereafter

SRI' VIRUPA'CSHA'

OR,

THE GOD WITH THREE EYES!

ON

IV.

ON THE MUSICAL MODES OF THE HINDUS:

Written in 1784, and since much enlarged

BY THE PRESIDENT.

MUSIC belongs, as a *Science*, to an interesting part of natural philosophy, which, by mathematical deductions from constant phenomena, explains the causes and properties of sound, limits the number of mixed, or *harmonies*, sounds to a certain series, which perpetually recurs, and fixes the ratio, which they bear to each other, or to one leading term, but, considered as an *Art*, it combines the sounds, which philosophy distinguishes, in such a manner as to gratify our ears, or affect our imaginations, or, by uniting both objects, to captivate the fancy while it pleases the sense, and, speaking, as it were, the language of beautiful nature, to raise correspondent ideas and emotions in the mind of the hearer – it then, and then only, becomes what we call a *fine art*, allied very nearly to verse, painting, and rhetorick, but subordinate in its functions to pathetick poetry, and inferior in its power to genuine eloquence.

Thus it is the province of the *philosopher*, to discover the true direction and divergence of sound propagated by the successive compressions and expansions of air, as the vibrating body advances and recedes, to show why sounds themselves may excite a tremulous motion in particular bodies, as in the known experiment of instruments tuned in unison, to demonstrate the law, by which all the particles of air, when it undulates with great quickness, are continually accelerated and retarded, to compare the number of pulses in agitated air with that of the vibrations, which cause them to compute the velocities and intervals of those pulses in atmospheres or dif-

ferent density and elasticity, to account, as well as he can, for the affections, which musick produces, and, generally, to investigate the causes of the many wonderful appearances, which it exhibits but the *artist*, without considering, and even without knowing, any of the sublime theorems in the philosophy of sound, may attain his end by a happy selection of *melodies* and *accents* adapted to passionate verse, and of *tunes* conformable to regular metre, and, above all, by *modulation*, or the choice and variation of those *modes*, as they are called, of which, as they are contrived and arranged by the *Hindus*, it is my design, and shall be my endeavour, to give you a general notion with all the perspicuity, that the subject will admit.

Although we must assign the first rank, transcendently and beyond all comparison, to that powerful musick, which may be denominated the sister of poetry and eloquence, yet the lower art of pleasing the sense by a succession of agreeable sounds, not only has merit and even charms, but may, I persuade myself, be applied on a variety of occasions to salutary purposes, whether, indeed, the sensation of hearing be caused, as many suspect, by the vibrations of an elastic ether flowing over the auditory nerves and propelled along their solid capillaments, or whether the fibres of our nerves, which seem indefinitely divisible, have, like the strings of a lute, peculiar vibrations proportioned to their length and degree of tension, we have not sufficient evidence to decide, but we are very sure that the whole nervous system is affected in a singular manner by combinations of sound, and that melody alone will often relieve the mind, when it is oppressed by intense application to business or study. The old musician, who rather figuratively, we may suppose, than with philosophical seriousness, declared *the soul itself to be nothing but harmony*, provoked the sprightly remark of CICERO, that *he drew his philosophy from the art which he professed*, but if, without depart-

ing from his own art, he had merely described the human frame as the noblest and sweetest of musical instruments, endued with a natural disposition to resonance and sympathy, alternately affecting and affected by the soul which pervades it, his description might, perhaps, have been physically just, and certainly ought not to have been hastily ridiculed that any medical purpose may be fully answered by musick, I dare not assert; but after food, when the operations of digestion and absorption give so much employment to the vessels, that a temporary state of mental repose must be found, especially in hot climates, essential to health, it seems reasonable to believe, that a few agreeable airs, either heard or played without effort, must have all the good effects of sleep and none of its disadvantages, *putting the soul in tune*, as MILTON says, for any subsequent exertion, an experiment, which has often been successfully made by myself, and which any one, who pleases, may easily repeat. Of what I am going to add, I cannot give equal evidence, but hardly know how to disbelieve the testimony of men, who had no system of their own to support, and could have no interest in deceiving me first, I have been assured by a credible eye witness, that two wild antelopes used often to come from their woods to the place, where a more savage beast, SIRA'JUNDAULAH, entertained himself with concerts, and that they listened to the strains with an appearance of pleasure, till the monster, in whose foul there was no musick, shot one of them to display his archery secondly, a learned native of this country told me, that he had frequently seen the most venomous and malignant snakes leave their holes, upon hearing tunes on a flute, which, as he supposed gave them peculiar delight, and, thirdly, an intelligent *Perisan*, who repeated his story again and again, and permitted me to write it down from his lips, declared, that he had more than once been present, when a celebrated lutanist, *Mirza MOHAMMEN*, surnamed *BULBUL*, was playing to a large

company in a grove near *Sbzaz*, where he distinctly saw the nightingales trying to vie with the musician, sometimes warbling on the trees, sometimes fluttering from branch to branch, as if they wished to approach the instrument, whence the melody proceeded, and at length dropping on the ground in a kind of extasy, from which they were soon roused, be assured me, by a change of the mode.

The astonishing effects ascribed to musick by the old *Grecs*, and, in our days, by the *Chinese*, *Perians*, and *Indians*, have probably been exaggerated and embellished, nor, if such effects had been really produced, could they be imputed, I think, to the mere influence of sounds, however combined or modified it may, therefore, be suspected, (not that the accounts are wholly fictitious, but) that such wonders were performed by musick in its largest sense, as it is now described by the *Hindus*, that is, by the union of *voices*, *instruments*, and *action*, for such is the complex idea conveyed by the word *Sangita*, the simple meaning of which is no more than *symphony*, but most of the *Indian* books on this art consist accordingly of three parts, *gána*, *vádyá*, *nriya*, or *sing*, *percussion*, and *dancing*, the first of which comprises the measures of poetry, the second extends to instrumental musick of all sorts, and the third includes the whole compass of theatrical representation. Now it may easily be conceived, that such an alliance, with the potent auxiliaries of distinct articulation, graceful gesture, and well adapted scenery, must have a strong general effect, and may, from particular associations, operate so forcibly on very sensible minds, as to excite copious tears, change the colour and countenance, heat or chill the blood, make the heart palpitate with violence, or even compel the hearer to start from his seat with the look, speech, and actions of a man in a phrensy the effect must be yet stronger, if the subject be *religious*, as that

of the old *Indian* dramas, both great and small (I mean both regular plays in many acts and shorter dramatick pieces on *dramatic love*) seems in general to have been. In this way only can we attempt to account for the indubitable effects of the *great airs* and impassioned *recitative* in the modern *Italian* dramas, where three beautiful arts, like the Graces united in a dance, are together exhibited in a state of excellency, which the ancient world could not have surpassed, and probably could not have equalled an heroick opera of *METASTASIO*, set by *PEROOLESI*, or by some artist of his incomparable school, and represented at *Naples*, displays at once the perfection of human genius, awakens all the affections, and captivates the imagination at the same instant through all the senses.

When such aids, as a perfect theatre would afford, are not accessible, the power of musick must in proportion be less, but it will ever be very considerable, if the words of the song be fine in themselves, and not only well translated into the language of melody, with a complete union of musical and rhetorical accents, but clearly pronounced by an accomplished singer, who feels what he sings, and fully understood by a hearer, who has passions to be moved, especially if the composer has availed himself in his *translation* (for such may his composition very justly be called) of all those advantages, with which nature, ever sedulous to promote our innocent gratifications, abundantly supplies him. The first of those natural advantages is the variety of *modes*, or *manners*, in which the *seven* harmonick sounds are perceived to move in succession, as each of them takes the lead, and consequently bears a new relation to the six others. Next to the phenomenon of seven sounds perpetually circulating in a geometrical progression, according to the length of the strings or the number of their vibrations, every ear must be sensible, that two of the seven intervals in the complete series, or octave, whether we

consider it as placed in a circular form, or in a right line with the first sound repeated, are much shorter than the five other intervals, and on these two phenomena, the modes of the *Hindus* (who seem ignorant of our complicated harmony) are principally constructed. The longer intervals we shall call *tones*, and the shorter (in compliance with custom) *semitones*, without mentioning their exact ratios, and it is evident, that, as the *places* of the semitones admit *seven* variations relative to one fundamental sound, there are as many modes, which may be called *primary*, but we must not confound them with our modern modes, which result from the system of accords now established in *Europe*: they may rather be compared with those of the *Roman Church*, where some valuable remnants of old *Grecian* musick are preserved in the sweet, majestic, simple, and affecting strains of the Plain Song. Now, since each of the tones may be divided, we find *twelve* semitones in the whole series, and, since each semitone may in its turn become the leader of a series formed after the model of every primary mode, we have *seven times twelve*, or *eighty-four*, modes in all, of which *seventy-seven* may be named *secondary*, and we shall see accordingly that the *Perfian* and the *Hindus* (at least in their most popular system) have exactly *eighty-four* modes, though distinguished by different appellations and arranged in different classes: but, since many of them are unpleasing to the ear, others difficult in execution, and few sufficiently marked by a character of sentiment and expression, which the higher musick always requires, the genius of the *Indians* has enabled them to retain the *number* of modes, which nature seems to have indicated, and to give each of them a character of its own by a happy and beautiful contrivance. Why any one series of sounds, the ratios of which are ascertained by observation and expressible by figures, should have a peculiar effect on the organ of hearing, and, by the auditory nerves, on the mind, will then only be known by mortals, when they shall know

why

why each of the seven colours in the rainbow, where a proportion, analogous to that of musical sounds, most wonderfully prevails, has a certain specifick effect on our eyes, why the shades of green and blue, for instance, are soft and soothing, while those of red and yellow distress and dazzle the sight, but, without striving to account for the phenomena, let us be satisfied with knowing, that some of the *modes* have distinct perceptible properties, and may be applied to the expression of various mental emotions, a fact, which ought well to be considered by those performers, who would reduce them all to a dull uniformity, and sacrifice the true beauties of their art to an injudicious temperament.

The ancient *Greeks*, among whom this delightful art was long in the bands of poets, and of mathematicians, who had much less to do with it, ascribe almost all its magick to the diversity of their *Modes*, but have left us little more than the names of them, without such discriminations, as might have enabled us to compare them with our own, and apply them to practise their writers addressed themselves to *Greeks*, who could not but know their national musick, and most of those writers were professed men of science, who thought more of calculating ratios than of inventing melody, so that, whenever we speak of the soft *Eolian* mode, of the tender *Lydian*, the voluptuous *Ionick*, the manly *Dorian*, or the animating *Pbyrgian*, we use mere phrases, I believe, without clear ideas. For all that is known concerning the musick of *Greece*, let me refer those, who have no inclination to read the dry works of the *Greeks* themselves, to a little tract of the learned *WAILIS*, which he printed as an appendix to the *Harmonicks* of *PTOLEMY*, to the Dictionary of Musick by *ROUSSEAU*, whose pen, formed to elucidate all the arts, had the property of spreading light before it on the darkest subjects, as if he had written with phosphorus on the sides of a cavern.

vern, and, lastly, to the dissertation of Dr. BURNETT, who passing slightly over all that is obscure, explains with perspicuity whatever is explicable, and gives dignity to the character of a modern musician, by uniting it with that of a scholar and a philosopher.

The unexampled felicity of our nation, who diffuse the blessings of a mild government over the finest part of *India*, would enable us to attain a perfect knowledge of the oriental musick, which is known and practised in these *British* dominions not by mercenary performers only, but even by *Muselmans* and *Hindus* of eminent rank and learning a native of *Cashan*, lately resident at *Murshidabad*, had a complete acquaintance with the *Perian* theory and practice, and the best artists in *Hindustan* would cheerfully attend our concerts we have an easy access to approved *Afghan* treatises on musical composition, and need not lament with CHARDIN, that he neglected to procure at *Isfahan* the explanation of a small tract on that subject, which he carried to *Europe* we may here examine the best instruments of *Asia*, may be masters of them, if we please, or at least may compare them with ours the concurrent labours, or rather amusements, of several in our own body, may facilitate the attainment of correct ideas on a subject so delightfully interesting, and a free communication from time to time of their respective discoveries would conduct them more surely and speedily, as well as more agreeably, to their desired end Such would be the advantages of union, or, to borrow a term from the art before us, of *harmonious accord*, in all our pursuits, and above all in that of knowledge.

On *Perian* musick, which is not the subject of this paper, it would be improper to enlarge the whole system of it is explained in a celebrated collection of tracts on pure and mixed mathematics, entitled *Durratu'lta*,
and

and composed by a very learned man, so generally called *Allami Serrazi*, or the great philosopher of Shurz, that his proper name is almost forgotten, but, as the modern Persians had access, I believe, to PTOLEMY's harmonicks, their mathematical writers on musick treat it rather as a science than as an art, and seem, like the Greeks, to be more intent on splitting tones into quarters and eighth parts, of which they compute the ratios to shew their arithmetick, than on displaying the principles of modulation as it may affect the passions. I apply the same observation to a short, but masterly, tract of the famed Abu'si'NA', and suspect that it is applicable to an elegant essay in Persian, called *Shamsul'lfuzat*, of which I have not had courage to read more than the preface. It will be sufficient to subjoin on this head, that the Persians distribute their eighty-four modes, according to an idea of locality, into twelve rooms, twenty-four recesses, and forty-eight angles or corners in the beautiful tale known by the title of the *Four Dervis*, originally written in Persia with great purity and elegance, we find the description of a concert, where four singers, with as many different instruments, are represented "modulating in twelve makams or perdabs, twenty-four shabbabs, and forty-eight gubahs, and beginning a mirthful song of "Ha'fiz, on vernal delight in the perdab named *raſt*, or direct" All the twelve perdabs, with their appropriated shababs, are enumerated by AMI'N, a writer and musician of Hindistan, who mentions an opinion of the learned, that only seven primary modes were in use before the reign of PARVIZ, whose musical entertainments are magnificently described by the incomparable NIZAMI: the modes are chiefly denominated like those of the Greeks and Hindus, from different regions or towns, as, among the perdabs, we see *Hijaz*, *Irak*, *Isfahan* and, among the shababs, or secondary modes, *Zabul*, *Nishapur*, and the like. In a Sanscrit book, which shall soon be particularly mentioned, I find the scale of a mode, named *Hyoga*, specified

specified in the following verse

Mans'agraha sa nyājō'c'bīd bīyajstu sayabne.

The name of this mode is not *Indiaz*, and, if I am right in believing it a corruption of *Hijaz*, which could hardly be written otherwise in the *Nagari* letters, we must conclude, that it was imported from *Perse* we have discovered then a *Perian* or *Arabian* mode with this diapason,

D, E, F \sharp , G \sharp , A, B, C \sharp , D,

where the first femitone appears between the *fourth* and *fifth* notes, and the second between the *seventh* and *eighth*, as in the natural scale *Fa, sol, la, si, ut, re, mi, fa* but the C \sharp , and G \sharp , or *ga* and *ni* of the *Indian* author, are variously *changed*, and probably the series may be formed in a manner not very different (though certainly there is a diversity) from our major mode of D. This melody must necessarily end with the *fifth* note from the tonick, and begin with the tonick itself; and it would be a gross violation of musical decorum in *India*, to sing it at any time except at the close of day these rules are comprised in the verse above cited, but the species of octave is arranged according to Mr. Fowles's remarks on the *Vina*, compared with the fixed *Swaragrama*, or gamut, of all the *Hindu* musicians.

Let us proceed to the *India* system, which is minutely explained in a great number of *Sanskrit* books, by authors, who leave arithmetic and geometry to their astronomers, and properly discourse on musick as an art confined to the pleasures of imagination. The *Pandits* of this province unanimously prefer the *Damodara* to any of the popular *Sangitas*, but I have not been able to procure a good copy of it, and am perfectly satisfied

satisfied with the *Narayan*, which I received from *Bendres*, and in which the *Damodar* is frequently quoted. The *Perfian* book, entitled *a Present from India*, was composed, under the patronage of *Aazzem Sha'ih*, by the very diligent and ingenious *Mirza Khan*, and contains a minute account of Hindu literature in all, or most of, its branches he professes to have extracted his elaborate chapter on musick, with the assistance of *Pandits*, from the *Rigarnava*, or Sea of Passions, the *Regaderpana*, or Mirror of Modes, the *Sabbavivoda*, or Delight of Assemblies, and some other approved treatises in *Sanskrit*. The *Sangitaderpan*, which he also names among his authorities, has been translated into *Perfian*; but my experience justifies me in pronouneing, that the *Moghols* have no idea of accurate *transfation*, and give that name to a mixture of glosis and text with a flimsy paraphrase of them both; that they are wholly unahle, yet always pretend, to write *Sanskrit* words in *Arabick* letters, that a man, who knows the *Hindus* only from *Perfian* books, does not know the *Hindus*, and that an *European*, who follows the muddy rivulets of *Muselman* writers on *India*, instead of drinking from the pure fountain of *Hindu* learning, will be in perpetual danger of misleading himself and others. From the just severity of this censure I except neither *Abu'lfaizz*, nor his brother *Fa'izi*, nor *Mohsanî Fa'vi*, nor *Mirza'kha'n* himself, and I speak of all four after an attentive perusal of their works. A tract on musick in the idiom of *Mashhad*, with several essays in pure *Hindufarsi*, lately passed through my hands, and I possess a dissertation on the same art in the lost dialect of *Panjab*, or *Panchnada*, where the national melody has, I am told, a peculiar and striking character, but I am very little acquainted with those dialects, and persuade myself, that nothing has been written in them, which may not be found more copiously and beautifully expressed in the language, as the *Hindus* perpetually call it, *of the Gods*, that is of their ancient bards, philofophers, and legislators.

The most valuable work, that I have seen, and perhaps the most valuable that exists, on the subject of Indian musick, is named *Ragavibodha*, or *The Doctrine of Musical Modes*, and it ought here to be mentioned very particularly, because none of the *Pandits*, in our provinces, nor any of those from *Cash or Cashmir*, to whom I have shown it, appear to have known that it was extant, and it may be considered as a treasure in the history of the art, which the zeal of Colonel POLIER has brought into light, and perhaps has preserved from destruction. He had purchased, among other curiosities, a volume containing a number of separate essays on musick in prose and verse, and in a great variety of idioms, besides tracts in *Arabick, Hindoo, and Persian*, it included a short essay in *Latin* by ALSTEDIUS, with an interlineary *Persian* translation, in which the passages quoted from LUCRETIUS and VIREO made a singular appearance but the brightest gem in the string was the *Ragavibodha*, which the Colonel permitted my *Nagari* writer to transcribe, and the transcript was diligently collated with the original by my *Pandit* and myself. It seems a very ancient composition, but is less old unquestionably than the *Ratnacara* by SA'RANGA DE'VA, which is more than once mentioned in it, and a copy of which Mr BURROW procured in his journey to *Homidwar* the name of the author was SO'MA, and he appears to have been a practical musician as well as a great scholar and an elegant poet, for the whole book, without excepting the strains noted in letters, which fill the fifth and last chapter of it, consists of masterly couplets in the melodious metre called *Aryd*, the first, third, and fourth chapters explain the doctrine of musical sounds, their division and succession, the variations of scales by temperament, and the enumeration of modes on a system totally different from those, which will presently be mentioned, and the second chapter contains a minute description of different *Vinas* with rules for playing on them.

This

This book alone would enable me, were I master of my time, to compose a treatise on the musick of *India*, with assistance, in the practical part, from an *European* professor and a native player on the *Vind*, but I have leisure only to present you with an essay, and even that, I am conscious, must be very superficial it may be sometimes, but, I trust, not often, erroneous, and I have spared no pains to secure myself from error.

In the literature of the *Hindus* all nature is animated and personified, every fine art is declared to have been revealed from heaven, and all knowledge, divine and human, is traced to its source in the *Vedas*, among which the *Samaveda* was intended to be sung, whence the reader or singer of it is called *Udgatri* or *Samaga* in Colonel POLIER's copy of it the strains are noted in figures, which it may not be impossible to decypher On account of this distinction, say the *Brahmins*, the *supreme preserving power*, in the form of *CRISHNA*, having enumerated in the *Gita* various orders of beings, to the chief of which he compares himself, pronounces, that " *among the Vedas he was the Saman*" From that *Veda* was accordingly derived the *Upaveda* of the *Gandharbas*, or musicians in *INDRA*'s heaven, so that the divine art was communicated to our species by *BRAHMA* himself or by his active power *SREESWATI*, the Goddess of Speech, and their mythological son *NA'RF*, who was in truth an ancient lawgiver and astronomer, invented the *Vind*, called also *Cach'bagh*, or *Tessuto*, a very remarkable fact, which may be added to the other proofs of a resemblance between that *Indian* God, and the MERCURY of the *Lattans* Among inspired mortals the first musician is believed to have been the sage *BHERAT*, who was the inventor, they say, of *Natas*, or dramas, represented with songs and dances, and author of a musical system, which bears his name If we can rely on *Mi'azakha'n*, there

are four principal *Matai*, or systems, the first of which is ascribed to ISWARA, or OSIRIS; the second to BUHRAT, the third to HANUMAT, or PA'VARA, the PAN of India, supposed to be the son of PAVANA, the regent of air, and the fourth to CALLINA'T'H, a Rishi, or Indian philosopher, eminently skilled in musick, theoretical and practical all four are mentioned by SO'MA, and it is the third of them, which must be very ancient, and seems to have been extremely popular, that I propose to explain after a few introductory remarks, but I may here observe with SO'MA, who exhibits a system of his own, and with the author of the *Narayan*, who mentions a great many others, that almost every kingdom and province had a peculiar style of melody, and very different names for the modes, as well as a different arrangement and enumeration of them.

The two phenomena, which have already been stated as the foundation of musical modes, could not long have escaped the attention of the Hindus, and their flexible language readily supplied them with names for the seven *Swaras*, or sounds, which they dispose in the following order, *shadja*, pronounced *sharya*, *rishabha*, *gandbara*, *madhyama*, *panchama*, *dvaravata*, *nishada*, but the first of them is emphatically named *svara*, or the sound, from the important office, which it bears in the scale, and hence, by taking the seven initial letters or syllables of those words, they contrived a notation for their airs, and at the same time exhibited a gamut, at least as convenient as that of GUIDO. they call it *svaragrama* or *septace*, and express it in this form.

sa, ri, ga, ma, pa, dha, ni,

three of which syllables are, by a singular concurrence exactly the same, though

though not all in the same places, with three of those invented by DAVIN MOSTARE, as a substitute for the troublesome gamut used in his time, and which he arranges thus

Bo, cr, ds, ga, lo, ma, ne.

As to the notation of melody, since every *Indies* consonant includes by its nature the short vowel *a*, five of the sounds are denoted by single consonants, and the two others have different short vowels taken from their full names. by substituting long vowels, the *sime* of each note is doubled, and other marks are used for a farther elongation of them, the octaves above and below the mean scale, the connection and acceleration of notes, the graces of execution or manners of fingering the instrument, are expressed very clearly by small circles and ellipses, by little chains, by curves, by straight lines, horizontal or perpendicular, and by crescents, all in various positions the close of a strain is distinguished by a lotos-flower, but the time and measure are determined by the prosody of the verse and by the comparative length of each syllable, with which every note or assemblage of notes respectively corresponds If I understand the native musicians, they have not only the *chromatick*, but even the second, or new, *enharmonick*, genus, for they unanimously reckon twenty two *s'ruts*, or quarters and thirds of a tone, in their octave they do not pretend that those minute intervals are mathematically equal, but consider them as equal in practice, and allot them to the several notes in the following order to *sa*, *ma*, and *pa*, four, to *ri* and *dba*, three, to *ga* and *m*, two; giving very smooth and significant names to each *s'ruti* Their original scale, therefore, stands thus,

<i>sa,</i>	<i>ri,</i>	<i>ga,</i>	<i>ma,</i>	<i>pa,</i>	<i>dba,</i>	<i>ne,</i>	<i>fa.</i>
$4s'$	$3s'$	$2s'$	$4s'$	$4s'$	$3s'$	$3s'$	$2s'$

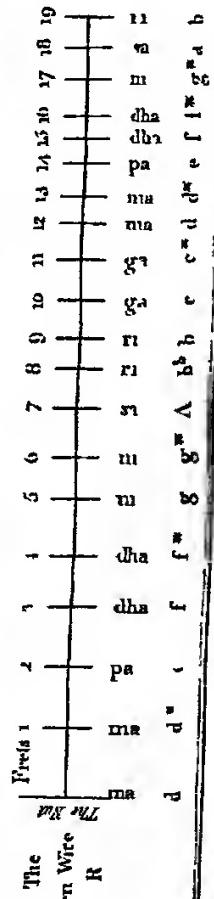
The semitones accordingly are placed as in our diatonic scale: the intervals between the fourth and fifth, and between the first and second, are major tones, but that between the fifth and sixth, which is minor in our scale, appears to be major in theirs, and the two scales are made to coincide by taking a *sriti* from *pa* and adding it to *dag*, or, in the language of Indian artists, by raising *Svarasita* to the class of *Sánta* and her sisters; for every *sriti* they consider as a little nymph, and the nymphs of *Panchama*, or the fifth note, are *Malini*, *Chopala*, *Lola*, and *Svarasita*, while *Santá* and her two sisters regularly belong to *Dhartarastra*: such at least is the system of Co-HAI A, one of the ancient bards, who has left a treatise on musick.

So'MA seems to admit, that a quarter or third of a tone cannot be separately and distinctly heard from the *Visa*, but he takes for granted, that its effect is very perceptible in their arrangement of modes, and their fifth, I imagine, is almost universally diminished by one *sriti*, for he only mentions two modes, in which all the seven notes are *swarita*. I tried in vain to discover any difference in practice between the *Indian* scale, and that of our own, but, knowing my ear to be very insufficiently exercised, I requested a German professor of musick to accompany with his violin a *Hindoo* lutanist, who sung *by note* some popular airs on the loves of CRISHNA and RA'DHÍ, he assured me, that the scales were the same, and Mr SHORE afterwards informed me, that, when the voice of a native singer was in tune with his harpsichord, he found the *Hindoo* series of seven notes to ascend, like ours, by a sharp third.

For the construction and character of the *Visa*, I must refer you to the very accurate and valuable paper of Mr. FOWKE in the first volume of your

Transactions;

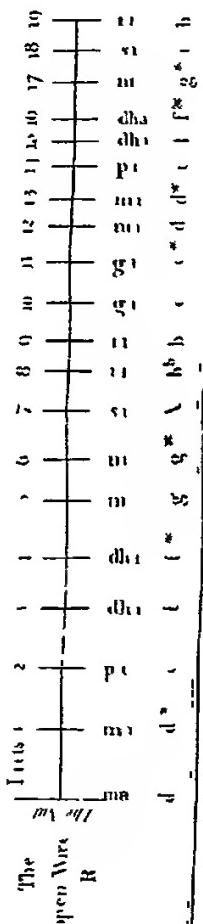
No of the Fretboard of the LINA reduced to the whole being 21 inches & 8 in length from the Nut to the highest Nut



Vol. 3

Fat /-t,

part of the upper ward of the IVth island, & the whole being so much a "morth from the port in the healthful



Transactions, and I now exhibit a scale of its finger board, which I received from him with the drawing of the instrument, and on the correctness of which you may confidently depend the regular Indian gamut answers, I believe pretty nearly to our major mode

Ut, re, mi, fa, sol, la, si, ut,

and, when the same syllables are applied to the notes, which compose our minor mode, they are distinguished by epithets expressing the change, which they suffer. It may be necessary to add, before we come to the *Ragas*, or modes of the *Hindus*, that the twenty-one *murch'banas*, which Mr. Shore's native musician confounded with the two and twenty *s'ravas*, appear to be no more than *seven* species of diapason multiplied by *three*, according to the difference of pitch in the compass of three octaves

Raga, which I translate a *mode*, properly signifies a *passion* or *affection* of the mind, each mode being intended, according to BAZAR's definition of it, to move one or another of our simple or mixed affections, and we learn accordingly from the *Narajan*, that, in the days of CRISHNA, there were *sixteen thousand* modes, each of the *Gopis* at *Ajat'hura* thusing to sing in one of them, in order to captivate the heart of their pastoral God. The very learned SO'NA, who mixes no mythology with his accurate system of *Ragas*, enumerates *nine hundred and sixty* possible variations by the means of temperament, but selects from them, as applicable to practice, only *twenty-three* primary modes, from which he deduces many others, though he allows, that by a diversity of ornament and by various contrivances, the *Ragas* might, like the waves of the sea, be multiplied to an infinite number. We have already observed, that *eighty-four modes or mantras* might naturally be formed by giving the lead to each of our twelve sounds, and varying in *seven* different ways the position of the semitones,

but, since many of those modes would be insufferable in practice, and some would have no character sufficiently marked, the Indians appear to have retained with predilection the number indicated by nature, and to have enforced their system by two powerful aids, the *association of ideas*, and the *mutilation of the regular scales*.

Whether it had occurred to the *Hindu* musicians, that the velocity or flowness of sounds must depend, in a certain ratio, upon the rarefaction and condensation of the air, so that their motion must be quicker in summer than in spring or autumn, and much quicker than in winter, I cannot assure myself, but am persuaded, that their primary modes, in the system ascribed to PA'VANA, were first arranged according to the number of Indian seasons.

The year is distributed by the *Hindus* into six *r̄it̄as*, or seasons, each consisting of two months; and the first season, according to the *Amarac̄osha*, began with *Margasirsha*, near the time of the winter solstice, to which month accordingly we see CAIshNA compared in the *Gīta*, but the old lunar year began, I believe, with *Aṣvina*, or near the autumnal equinox, when the moon was at the full in the first mansion hence the musical season, which takes the lead, includes the months of *Aṣvina* and *Cartika*, and bears the name of *Sarad*, corresponding with part of our autumn, the next in order are *Hemanta* and *Sis'ira*, derived from words, which signify frost and dew, then come *Vasantā*, or spring, called also *Surabhi* or fragrant, and *Push-pasamaya*, or the flower time, *Gṛibhīma*, or beat, and *Verba*, or the season of rain By appropriating a different mode to each of the different seasons, the artists of *India* connected certain strains with certain ideas, and were able to recal the memory of autumnal merriment at the close of the harvest,

harvest, of separation and melancholy (very different from our ideas at *Calcutta*) during the cold months, of reviving hilarity on the appearance of blossoms, and complete vernal delight in the month of *Madhu* or *honey*, of languor during the dry heats, and of refreshment by the first rains, which cause in this climate a second spring Yet farther since the lunar year, by which festivals and superstitious duties are constantly regulated, proceeds concurrently with the solar year, to which the seasons are necessarily referred, *devotion* comes also to the aid of musick, and all the powers of nature, which are allegorically worshipped as gods and goddesses on their several holidays, contribute to the influence of song on minds naturally susceptible of religious emotions Hence it was, I imagine, that PA'VAN, or the inventor of his musical system, reduced the number of original modes from seven to six, but even this was not enough for his purpose, and he had recourse to the five principal divisions of the day, which are the morning, noon, and evening, called *trisandhya*, with two intervals between them, or the forenoon and afternoon by adding two divisions, or intervals, of the night, and by leaving one species of melody without any such restriction, SO'MA reckons eight variations in respect of time, and the system of PA'VAN retains that number also in the second order of derivative modes Every branch of knowledge in this country has been embellished by poetical fables, and the inventive talents of the Greeks never suggested a more charming allegory than the lovely families of the six Rāgas, named, in the order of seasons above exhibited, BHAIKAVA, MA'LAVA, SKI'RĀ'OA, HINDO'LA or VASANTA, DI'FACA, and ME'CHA, each of whom is a Genius, or Demigod, wedded to five *Ragnis*, or Nymphs, and father of eight little Genii, called his *Putras*, or Sons the fancy of SHAKSPEAR and the pencil of ALBANO might have been finely employed in giving speech and form to this assemblage of new aerial beings, who people the fairy-land

of Indian imagination, nor have the *Hindu* poets and painters lost the advantages, with which so beautiful a subject presented them. A whole chapter of the *Nareyan* contains descriptions of the *Régas* and their consorts, extracted chiefly from the *Damodar*, the *Calancura*, the *Reynamala*, the *Chandrica*, and a metrical tract on musick ascribed to the God Nārāyaṇ himself, from which, as among so many beauties a particular selection would be very perplexing, I present you with the first that occurs, and have no doubt, that you will think the *Sanskrit* language equal to *Bahá* in softness and elegance

*Srivara ésha prat'hitah prit'hivyām.
Vilasi vesodita divya murtih
Chunvan prasunini vadbu fabayah,
Lila vihárena vanantarale,*

" The demigod SRÍ'RÁ'GA, famed over all this earth, sweetly sports with his " nymphs, gathering fresh blossoms in the bosom of yon grove, and his di- " vine lineaments are distinguished through his graceful vesture."

These and similar images, but wonderfully diversified, are expressed in a variety of measures, and represented by delicate pencils in the *Ragamalas*, which all of us have examined, and among which the most beautiful are in the possession of Mr R JOHNSON and Mr HAY. A noble work might be composed by any musician and scholar, who enjoyed leisure and disregarded expense, if he would exhibit a perfect system of Indian musick from *Sanskrit* authorities, with the old melodies of SÓ'MA applied to the songs of JAYADE'VA, embellished with descriptions of all the modes accurately translated, and with Mr HAY's *Ragamala* delineated and engraved by the scholars of CIPRIANI and BARTOZZI.

Let us proceed to the second artifice of the *Hindu* musicians, in giving their modes a distinct character and a very agreeable diversity of expression. A curious passage from PLUTARCH's Treatise on Musick is translated and explained by DR BURKE, and stands as the text of the most interesting chapter in his dissertation since I cannot procure the original, I exhibit a paraprase of his translation, on the correctness of which I can rely but I have avoided, as much as possible, the technical words of the Greeks, which it might be necessary to explain at some length. " We are informed, says PLUTARCH, by ARISTOCLEUS, that musicians ascribe to OLYMPUS of *Mysia* the invention of *enharmonick* melody, and conjecture, that, when he was playing diatonically on his flute, and frequently passed from the highest of four sounds to the lowest but one, or conversely, skipping over the second in descent, or the third in ascent, of that series, he perceived a singular beauty of expression, which induced him to dispose the whole series of seven or eight sounds by similar skips, and to frame by the same analogy his *Dorian* mode, omitting every sound peculiar to the diatonick and chromatick melodies then in use, but without adding any that have since been made essential to the new enharmonick in this genus, they say, he composed the *Nome*, or strain, called *Spondean*, because it was used in temples at the time of religious libations. Those, it seems, were the first enharmonick melodies, and are still retained by some, who play on the flute in the antique style without any division of a semitone, for it was after the age of OLYMPUS, that the quarter of a tone was admitted into the *Lydian* and *Pbrygian* modes, and it was he, therefore, who, by introducing an exquisite melody before unknown in *Greece*, became the author and parent of the most beautiful and affecting musick "

This method then of adding to the character and effect of a mode by diminishing the number of its primitive sounds, was introduced by a Greek of the lower *Asia*, who flourished, according to the learned and accurate writer of the Travels of *Anacharsis*, about the middle of the *thirteenth century before Christ*, but it must have been older still among the *Hindus*, if the system, to which I now return, was actually invented in the age of *Rāma*.

Since it appears from the *Narayan*, that *twenty-six* modes are in general use, and the rest very rarely applied to practice, I shall exhibit only the scales of the six *Rāgas* and thirty *Raginis*, according to *Sōma*, the authors quoted in the *Narayan*, and the books explained by *Pandits* to *Mirza-khan*, on whose credit I must rely for that of *Cecubba*, which I cannot find in my *Sanskrit* treatises on musick had I depended on him for information of greater consequence, he would have led me into a very serious mistake, for he asserts, what I now find erroneous, that the *graba* is the first note of every mode, with which every song, that is composed in it, must invariably begin and end. Three distinguished sounds in each mode are called *graba*, *nyasa*, *ans'a*, and the writer of the *Narayan* defines them in the two following couplets.

Graba swarah sa ityudō yō gitādau samarpitah,
Nyasa swarastu sa prōktō yō gitadi samapticah
 Yo vyačivyanjacō gane, yasya serve' nūgāminah,
Yasya servatra bahulyam vādy ans'o pi nr̄ipotamah

" The note, called *graba*, is placed at the beginning, and that named *nyasa*, " at the end, of a song that note, which displays the peculiar melody, and " to which all the others are subordinate, that, which is always of the " greatest use, is like a sovereign, though a mere *ans'a*, or portion "

" By

" By the word *vadī*, says the commentator, he means the note, which announces and ascertains the *Raga*, and which may be considered as the parent and origin of the *grāma* and *nyāsa*" this clearly shows, I think, that the *ans'a* must be the tonick, and we shall find, that the two other notes are generally its third and fifth, or the mediant and the dominant. In the poem entitled *Mogha* there is a musical simile, which may illustrate and confirm our idea

Analpatwāt pradhānatwād ans'asye etarashwarāḥ,
Vijigishōrnripatayah prayānti perichāratam

" From the greatness, from the transcendent qualities, of that Hero eager
" for conquest, other kings march in subordination to him, as other notes
" are subordinate to the *ans'a*"

If the *ans'a* be the tonick, or modal note, of the *Hindus*, we may confidently exhibit the scales of the *Indian* modes, according to So'MA, denoting by an asterisk the omission of a note

BHAIRAVA	dha, <i>ri</i> , fa, <i>ri</i> , <i>ga</i> ma, pa.
<i>Varati</i>	fa, <i>ri</i> , <i>ga</i> , <i>ma</i> , pa, dha, <i>ri</i>
<i>Medbyamadi</i>	ma, pa, *, <i>ri</i> , fa, *, <i>ga</i>
<i>Bhairavi</i>	fa, <i>ri</i> , <i>ga</i> , <i>ma</i> , <i>pa</i> , <i>dka</i> , <i>ri</i> .
<i>Saundbevi</i>	fa, <i>ri</i> , *, <i>ma</i> , <i>pa</i> , <i>dba</i> , *
<i>Bengali</i>	fa, <i>ri</i> , <i>ga</i> , <i>ma</i> , <i>pa</i> , dha, <i>ri</i> .
MA'LAVA:	<i>ri</i> , fa, <i>ri</i> , <i>ga</i> , <i>ma</i> , pa, dha
<i>Tvārī.</i>	<i>ga</i> , <i>ma</i> , <i>pa</i> , dha, <i>ri</i> , fa, <i>ri</i>
<i>Gaudi</i>	<i>ri</i> , fa, <i>ri</i> , *, <i>ma</i> , <i>pa</i> , *
<i>Gāndacri</i>	fa, <i>ri</i> , <i>ga</i> , <i>ma</i> , <i>pa</i> , *, <i>ri</i>
<i>Sūf'bavatī:</i>	not in So'MA

Cacubba

Cacubha

not in So'MA.

SHRIV'GA	{	ni,	fa,	ri,	ga,	ma,	pa,	dha	*
Malavas'ri		fa,	*	ga,	ma,	pa,	*	ni,	
Maravi		ga,	ma,	pa,	*	ni,	fa,	*	
Dhvanyasi		fa,	*	ga,	ma,	pa,	*	ni	
Vasantis		fa,	ri,	ga,	ma,	*	dha,	ni	
Afaveri		ma,	pa,	dha,	ni,	fa,	ri,	ga.	
HEINDO'LAI	{	ma,	*	dha,	ni,	fa,	*	ga,	
Ramacris		fa,	ri,	ga,	ma,	pa,	dha,	ni	
Des'acast		ga,	ma,	pa,	dha,	*	fa,	ri	
Lelita		fa,	ri,	ga,	ma,	*	dba,	ni	
Vejadah		dha,	ni,	fa,	*	ga,	ma,	*	
Palamansari		not in So'MA							

Di'PACA

not in So'MA

Des'i	{	ri,	*	ma,	pa,	dba,	ni,	fa	
Cambodi		fa,	ri,	ga,	ma,	pa,	dba,	*	
Nesta		fa,	ri,	ga,	ma,	pa,	dba,	ni	
Cedari		ni,	fa,	ri,	ga,	ma,	pa,	dba,	
Carnati		ni,	fa,	*	ga,	ma,	pa,	*	

ME'CHA

not in So'MA

Tecca	{	fa,	ri,	ga,	ma,	pa,	dha,	ni	
Mellarì		dha,	*	fa,	ri,	*	ma,	pa,	
Guryard.		ri,	ga,	ma,	*	dha,	ni,	fa,	
Bbipalli		ga,	*	pa,	dba,	*	fa,	ri,	
Des'aci		fa,	ri,	ga,	ma,	pa,	dba,	ni	

It is impossible, that I should have erred much, if at all, in the preceding table, because the regularity of the *Sanskrit* metre has in general enabled

enabled me to correct the manuscript, but I have some doubt as to *Velā-vati*, of which *pa* is declared to be the *sns'a*, or tonick, though it is said in the same line, that both *pa* and *ri* may be omitted. I, therefore, have supposed *dha* to be the true reading, both MIRZAKHAN and the *Narāyan* exhibiting that note as the leader of the mode. The notes printed in Itahck letters are variously changed by temperament or by shakcs and other graces, but, even if I were able to give you so words a distinct notion of those changes, the account of each mode would be insufferably tedious, and scarce intelligible without the assistance of a masterly performer on the Indian lyre. According to the best authorities adduced in the *Narāyan*, the thirty-six modes are, in some provinces, arranged in these forms

BHAIRAVA	
<i>Varati</i>	{ dha, ni, fa, ri, ga, ma, pa
<i>Medhyamadi</i>	fa, ri, ga, ma, pa, dha, ni
<i>Bbaravi</i>	ni, fa, *, ga, ma, pa, dha
<i>Sandbati</i>	fa, *, ga, ma, *, dha, ni
<i>Bengali</i>	pa, dha, ni, fa, ri, ga, ma
	fa, ri, ga, ma, pa, dha, ni
MA'LAVA	
<i>Todi</i>	{ ma, *, dha, ni, fa, ri, ga
<i>Gau'di</i>	ma, pa, dha, ni, fa, ri, ga
<i>Gondacri</i>	ni, fa, ri, ga, ma, *, dha.
<i>Sufi bavati</i>	fa, *, ga, ma, pa, *, ni
<i>Cacubba</i>	dha, ni, fa, ri, ga, ma, *
	not in the <i>Narāyan</i>
SRI'RAGA	
<i>Ma'avastrī</i>	{ fa, ri, ga, ma, pa, dha, ni
<i>Marevi</i>	fa, ri, ga, ma, pa, dha, ni.
<i>Dbanyasi</i>	fa, *, ga, ma, pa, dha, ni.
<i>Vasanti</i>	fa, ri, ga, ma, pa, dha, ni.
<i>A'saverī</i>	fa, ri, ga, ma, pa, dha, ni, fa

HINDO'LA-	{	fa, *	ga,	ma,	*	dha,	ni.
Ramacri	{	fa,	ri,	ga,	ma,	pa,	dha,
Desacri	{	ga,	ma,	pa,	dha,	ni,	ri.
Lelita	{	fa,	*	ga,	ma,	pa,	*
Velavali-	{	dha,	ni,	fa,	ri,	ga,	ma,
Patamanjari	{	(pa,	dba,	ni,	fa,	ri,	ga,
							ma.
DI'PACA						omitted.	
Desi	{	ni,	fa,	ri,	ga,	ma,	pa,
Cambodi	{	fa,	ri,	ga,	ma,	pa,	dba,
Netta	{	fa,	ri,	ga,	ma,	pa,	dha,
Cedari	{	ni,	fa,	ri	ga,	ma,	pa,
Cernati	{	ni,	fa,	ri	ga,	ma,	dha.
MUGHNA	{	dha,	ni,	fa,	ri,	ga,	ma,
Tacca	{					(a mixed mode)	pa
Mellari	{	dha,	ni,	*	ri,	ga,	ma,
Gurjari	{					omitted in the Narayan	*
Bhupali.	{	fa,	ri,	ga,	*	pa,	dha,
Desaci	{	ni,	fa,	*	ga,	ma,	*

Among the scales just enumerated we may safely fix on that of SRI'-RA'GA for our own major mode, since its form and character are thus described in a *Sanskrit* couplet

Járunyásagrabagrahmáns'eshu sha'djò' *ipapanchamab,*
Srínárávárayórjnýayah *Srirágó gitacóvidaih*

" Musicians know Sríaga to have *sa* for its principal note and the first of " its scale, with *pa* diminished, and to be used for expressing heroick love " and valour." Now the diminution of *pa* by one *sruti* gives us the modern *European* scale,

ut, re, mi, fa, sol, la, si, ut

with a minor tone, or, as the *Indians* would express it, with three *s'ruṭis*, between the fifth and sixth notes.

On the formulas exhibited by Mi'rzaKha'n I have less reliance, but, since he professes to give them from *Sanskrit* authorities, it seemed proper to transcribe them.

BHAIRAVA.	
<i>Varati</i>	{ dha, ni, fa, *, ga, ma, *.
<i>Medbyamadi</i>	{ fa, ri, ga, ma, pa, dha, ni
<i>Bhairavi</i>	{ ma, pa, dha, ni, fa, ri, ga
<i>Sarndbavi</i>	{ ma, pa, dha, ni, fa, ri, ga
<i>Bengali</i> .	{ fa, ri, ga, ma, pa, dha, ni
	{ fa, ri, ga, ma, pa, dha, ni.
MA'LAVA	
<i>Tōdī</i>	{ fa, ri, ga, ma, pa, dha, ni
<i>Gau'dī</i>	{ fa, *, ga, ma, *, dha, ni
<i>Gondacri</i>	{ ni, fa, *, ga, ma, pa, *
<i>Suf'bavati</i>	{ dha, ni, fa, ri, ga, ma, *
<i>Cacubba</i>	{ dha, ni, fa, ri, ga, ma, pa.
SRI'KA'GA'	
<i>Malavafrī</i> :	{ fa, ri, ga, ma, pa, dha, ni
<i>Maravi</i>	{ fa, ri, ga, ma, pa, dha, ni
<i>Dhangastī</i> .	{ fa, *, pa, ga, ma, dha, ni
<i>Vafentī</i>	{ fa, pa, dha, ni, ri, ga, *
<i>A'saverī</i>	{ dha, ni, fa, *, *, ma, pa.

HINDOULS	{ fa, *, ga, ma, pa, *, ni
Kamatri	{ fa, *, ga, ma, pa, *, ni
Desacri	{ ga, ma, pa, dha, ni, fa, *
Lehta	{ dha, ni, fa, *, ga, ma, *
Velava's	{ dha, ni, fa, ri, ga, ma, pa
Potmarjari	{ pa, dha, ni, fa, ri, ga, ma
DI'PACA	{ fa, ri, ga, ma, pa, dha, ni.
Desi	{ ri, ga, ma, *, dha, ni, fa
Cambodi	{ dha, ni, fa, ri, ga, ma, pa.
Netta	{ fa, ni, dha, pa, ma, ga, ri
Cedari	{ ni, fa, *, ga, ma, pa, *
Carnass	{ ni, fa, ri, ga, ma, pa, dha
MERCHA	{ dha, ni, fa, ri, ga, *, *
Tacca	{ fa, ri, ga, ma, pa, dha, ni
Mel'ari	{ dha, ni, *, ri, ga, ma, *
Gurjari	{ ri, ga, ma, pa, dha, ni, fa
Bilupali	{ fa, ga, ma, dha, ni, pa, ri.
Desaci	{ fa, ri, ga, ma, pa, dha, ni

It may reasonably be suspected, that the *Moghol* writer could not have shown the distinction, which must necessarily have been made, between the different modes, to which he assigns the same formula, and, as to his inversions of the notes in some of the *Raginis*, I can only say, that no such changes appear in the *Sanscrit* books, which I have inspected. I leave our scholars and musicians to find, among the scales here exhibited, the *Dorian* mode of OLYMPLS, but it cannot escape notice, that the Chinese scale, C, D, E, *, G, A, *, corresponds very-nearly with ga, ma, pa, *, ni, fa, *, or the *Marevi* of SO'MA we have long known in *Bengal*, from the information

mation of a *Scotch* gentleman skilled in musick, that the wild, but charming melodies of the ancient highlanders were formed by a similar mutilation of the natural scale. By such mutilations, and by various alterations of the notes in tuning the *Vina*, the number of modes might be augmented indefinitely, and *CALLIVAT'HA*, admits *nearly* into his system, allowing *six* nymphs, instead of *five*, to each of his musical deities for *Dipaca*, which is generally considered as a lost mode, (though *MIRZA'KHAN* exhibits the notes of it) he substitutes *Panchame*, for *Hindo'a*, he gives us *Vasanta*, or the Spring, and for *Malava*, *Natarazya* or *CRISHNA* the Dancer, all with scales rather different from those of *PA'VAN*. The system of *ISWARA*, which may have had some affinity with the old *Egyptian* musick invented or improved by *Ostris*, nearly resembles that of *HANUMAT*, but the names and scales are a little varied in all the systems, the names of the modes are significant, and some of them as fanciful as those of the fairies in the Midsummer Night's Dream. Forty eight new modes were added by *BHILRAJ*, who marries a nymph, thence called *Bbarja*, to each *Putra*, or Son, of a *Raga*, thus admitting, in his musical school, an *hundred and thirty-two* manners of arranging the series of notes.

Had the *Indian* empire continued in full energy for the last two thousand years, religion would, no doubt, have given permanence to systems of musick invented, as the *Hindus* believe, by their Gods, and adapted to mystical poetry but such have been the revolutions of their government since the time of *ALEXANDER*, that although the *Sanskrit* books have preserved the theory of their musical composition, the practice of it seems almost wholly lost (as all the *Pandits* and *Rajas* confess) in *Gaur* and *Magarba*, or the provinces of *Bengal* and *Behar*. When I first read the songs of *JAHAN'VA*, who has prefixed to each of them the name of the mode

to which it was anciently sung, I had hopes of procuring the original musick, but the *Pandits* of the south referred me to those of the west, and the *Brabmens* of the west would have sent me to those of the north, while they, I mean those of *Nepal* and *Cashmir*, declared that they had no ancient musick, but imagined, that the notes to the *Gutagóonda* must exist, if any where, in one of the southern provinces, where the poet was born. from all this I collect, that the art, which flourished in *India* many centuries ago, has faded for want of due culture, though some scanty remnants of it may, perhaps, be preserved in the pastoral roundlays of *Ma'bura* on the loves and sports of the *Indian Apollo*. We must not, therefore, be surprised, if modern performers on the *Vira* have little or no modulation, or change of mode, to which passionate musick owes nearly all its enchantment, but that the old musicians of *India*, having fixed on a leading mode to express the general character of the song, which they were translating into the musical language, varied that mode, by certain rules, according to the variation of sentiment or passion in the poetical phrases, and always returned to it at the close of the air, many reasons induce me to believe, though I cannot but admit, that their modulation must have been greatly confined by the restriction of certain modes to certain seasons and hours, unless those restrictions belonged merely to the principal mode. The scale of the *Vira*, we find, comprised both our *European* modes, and, if some of the notes can be raised a semitone by a stronger pressure on the frets, a delicate and experienced finger might produce the effect of minute enharmonic intervals. the construction of the instrument, therefore, seems to favour my conjecture, and an excellent judge of the subject informs us, that, "the open wires are from time to time struck in a manner, that prepares the ear for a change of modulation, to which the uncommonly full and fine tones of those notes greatly contribute."

" bute " We may add, that the *Hindu* poets never fail to change the *metre*, which is their *mode*, according to the change of subject or sentiment in the same piece, and I could produce instances of *poetical modulation* (if such a phrase may be used) at least equal to the most affecting modulations of our greatest composers now the musician must naturally have emulated the poet, as every translator endeavours to resemble his original, and, since each of the *Indian modes* is appropriated to a certain affection of the mind, it is hardly possible, that, where the passion is varied, a skilful musician could avoid a variation of the mode The rules for modulation seem to be contained in the chapters on *mixed modes*, for an intermixture of *Mellaris* with *Todi* and *Sandhu* means, I suppose, a transition, however short, from one to another but the question must remain undecided, unless we can find in the *Sangitas* a clearer account of modulation, than I am able to produce, or unless we can procure a copy of the *Gitagovinda* with the musick, to which it was set, before the time of *Cilidas*, in some notation, that may be easily decyphered It is obvious, that I have not been speaking of a modulation regulated by harmony, with which the *Hindus*, I believe, were unacquainted, though, like the Greeks, they distinguish the *consonant* and *dissonant* sounds I mean only such a transition from one series of notes to another, as we see described by the Greek musicians, who were ignorant of *harmony*, in the modern sense of the word, and, perhaps, if they had known it ever so perfectly, would have applied it solely to the support of melody, which alone speaks the language of passion and sentiment

It would give me pleasure to close this essay with several specimens of old *Indian* airs from the fifth chapter of *Soma* but I have leisure only to present you with one of them in our own characters accompanied with the orginal notes I selected the mode of *Vasant*, because it was adapted by

JAYADEVA

JAYADEVA himself to the most beautiful of his odas, and because the number of notes to SO'NA compared with that of the syllables in the Sanscrit stanza, may lead us to guess, that the strain itself was applied by the musician to the very words of the poet. The words are:

Lalita lavanga lata perisilana comala malaya samiré,
 Madbucara meara carambita cécila cujita cunja cutiré
 Viharan heringha sarasa vasanté
 Nrityati yuvati janéna saman sae'hi virabi janasya durante

" While the soft gale of *Maloya* wafts perfume from the beautiful clove-plant, and the recels of each flowery arbour sweetly resounds with " the strains of the *Cocila* mingled with the murmurs of the honey making " swarms, Hrī dances, O lovely friend, with a company of damsels in " this vernal season, a season full of delights, but painful to separated " lovers "

I have noted SO'NA's air in the major mode of A, or *sa*, which, from its gaiety and brilliancy, well expresses the general hilarity of the song, but the sentiment of tender pain, even in a season of delights, from the remembrance of pleasures no longer attainable, would require in our musick a change to the minor mode; and the air might be disposed in the form of a roodeau, ending with the second line, or even with the third, where the sense is equally full, if it should be thought proper to express by another modulation that *mutative melody*, which the poet has manifestly attempted the measure is very rapid, and the air should be gay, or even quick, in exact proportion to it.

The following is a strain in the mode of Hindoo's, beginning and ending with the 1st note *fa*, but wanting *pa*, and *si*, or the second and fifth. I could easily have found words for it in the *Exaggerated*, but the jaded charms of poetry at 1 music would lead me too far, and I will now with reluctance bid farewell to a subject, which I despair of having time to pursue.

AN OLD INDIAN AIR

The musical score consists of five staves of music in G major, common time. The lyrics are written below each staff:

- Staff 1: *Yi-ka-yi-a taper han- can-dee-n b-i*
- Staff 2: *ek-h-va-l-a pat-o-ot te-jal-e-y-ot*
- Staff 3: *al-an-he-nak-fu-tu-ak TRY IV VI I-hal-mu-nu*
- Staff 4: *mi-ha-ki-fu-na ran-te*
- Staff 5: *ka z gū mō tā qba - i fa*

A LETTER from LIEUT. COL. BROWNE to the PRESIDENT.

DEAR SIR,

IN the course of reading history, it is a reflection, which must, I think, have occurred to every one, that, if the actors in the most material events could have foreseen the importance, which those events would have in the eyes of posterity, they would certainly have preserved such detailed and circumstantial relations of them, as would have prevented the general darkness and uncertainty, which we now experience and lament but it has probably seldom happened, that their genius, or leisure from more important concerns, has admitted of this, and thus we are from necessity often compelled to rest satisfied with imperfect traditions, repeated (or, which is worse, arbitrarily amended) by subsequent historians.

With what avidity should we now peruse an account written by any of the principal persons present at the battle of *Hastings*, of *Lincoln*, of *Levies*, of *Evesham*, of *Cressy*, of *Agincourt*, of *Towton*, or of *Bosworth*! but in those days, a general or statesman, was as unskilful with his pen, as he was expert with his fword, and the monks, who were almost the only writers, were seldom participators of such active scenes

Considering this, as well as the importance, which the wars and politicians of *Hindostan* have now acquired in the opinions of *European* historians, I cannot avoid believing, that the great events of this country will hereafter be fought for with as much diligence, as those of the early part of *European* history are at present if I am not mistaken in this, the battle of *Pampus* will be among those events, which will claim the greatest attention, both as a military action, and as an era, from which the reduction of the

Mahratta

Mahratta power may be fixed, who otherwise would probably have long ago reduced the whole of *Hindostan* to their obedience

It appeared to me in this light at a time, when a very particular and authentick narrative of that action came into my possession, and, as the plainness of the original led me to believe myself competent to the task, I was induced to undertake the translating it into *English*, that the difficulty of reading it in the *Perfias* might not prevent its being as generally known, as its historical importance merits

It is almost superfluous to tell you, dear Sir, who are so well versed in *Afriatick* history, that this battle was fought in the month of *January 1761*, between the united forces of all the *Mahratta* chiefs on one side, commanded by *SEDAKHO*, (commonly called the *Bhow*) and the combined armies of the *Durranses*, *Robillas*, and *Hindostany Muffulmans*, on the other, under the command of *AHMEN SHAH DURRANY* few battles have been more bloody, or decisive of greater events, for, had the *Mahrattas* been conquerors, they would have put a final period to the *Muffulman* dominion in *Hindostan*, and established their own in its place, but, as it happened, the power of the *Mahrattas* received a shock, from which it has never entirely recovered, and the *DURRANY SHAH*, having returned precipitately to his own dominion, left the disunited *Robilla* and *Hindostany Muffulmans* to carry on, as they could, their distrusted government, under a wretched pageant of royalty, and a divided and unprincipled nobility

The writer of this narrative, *CASI RAI PUVDIT*, was a *Mutsafeddy* in the service of the late Vizier, *SHUJA-UL-DOWLAH*, and being by birth a native of the *Decan*, acquainted with the *Mahratta* language,

and having some friends in the service of the Bhow, he became the channel of several overtures for peace, which the Bhow endeavoured to negotiate through SHUJA-UL-DOWLAH this, together with the accuracy and clearness of his narrative, makes it much more interesting than any other which I have seen. - The translation is however far from literal, as I endeavoured to make the style as plain and undorned as possible.

Such as it is, permit me dear Sir, to offer it to you, and to leave it to your disposal if I am so happy as to know, that it receives your approbation, as likely to prove useful in elucidating the history of this country, I shall think myself sufficiently rewarded for the time it has taken up. Believe me to be, with the greatest esteem and respect,

DEAR SIR,

Your very faithful

and obedient servant,

Bengal,
February 1, 1791.

JAMES BROWNE.

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PLAN OF THE BATTLE OF PANIPUT



V.

AN ACCOUNT OF THE BATTLE OF PANIPUT,

Written in Persian by Captain Sadasheo, who was present at the Battle

BALA ROW, ~~who~~, ~~was~~, ~~fat~~ on the *Musnud* of government in the *Decan*, was considered by the chiefs and inhabitants of *Hindostan* as a man of wisdom, circumspection, and good fortune but he naturally loved his ease and pleasure, which did not however lose him the respect and attachment of his people.

As long as harmony prevailed in his family, he left the entire management of all the affairs of government to ~~Sesario~~* Row Bhow, and gave himself up to pleasure.

SADASHEO, from his earliest years, had studied every branch of the art of government, the regulation of the finances and the army, the conduct of all publick affairs, under the instruction of RAMESHROW BALKINDUB, the greatest statesman of the age, and from the first watch of the day till the middle of the night, applied to the publick business. By his great experience, address, and ability, he brought men over to his opinion, to a co-operation in his measures, and a perfect reliance upon his wisdom and ability. Several important affairs both in the *Decan* and the provinces had been brought to a conclusion by his means; and at length an expedition was fitted out for completing the conquest of *Hindostan*, under

* Properly *Sadifrua*.

the supreme command of RAGHUNAUT Row MULHAR Row HULKUR, JUNKOOGEE SINDIA, and several other chiefs, were ordered to act under him with very powerful forces. They accordingly marched into Hindostan, and with little difficulty reduced every place to their obedience, until they came to the neighbourhood of *Labore* and *Shabdeola* here they were opposed by JEHAN KHAN and the other commanders left in those districts by AHMED SHAH DURRANY, whom they defeated and compelled to repass the *Attack*. They kept possession of that country for some time, but the army beginning to fall considerably in arrears, RAGHUNAUT Row thought it advisable to return to the *Deccan*.

Upon the return of RAGHUNAUT Row, the accounts of his expedition being inspected by the Bhow, it was found that a debt of eighty-eight lacs of rupees was due to the army, so much had the expences been allowed to exceed all the collections of tribute, *piscus*, &c. The Bhow, who was in every respect superior to RAGHUNAUT, reproached him severely for this, and asked him if that was his good management, to bring home debts instead of an increase of wealth to the treasury of the state which RAGHUNAUT Row replied to, by advising him to try his own skill next time, and see what advantage he could make of it. BALA Row however interferred, and reconciled them in some degree, by excusing RAGHUNAUT Row on account of his youth and inexperience.

Next year the scheme of reducing Hindostan being renewed, and the command again offered to RAGHUNAUT Row, he declined it, saying, "let those have the command who are well-wishers to the state, and who will consult the public advantage." This speech gave great offence to the Bhow, and, on many considerations, he offered himself to take the command.

mand of the expedition, taking with him Biswas Row, the eldest son of BALA Row, then seventeen years of age, as the nominal commander in chief, according to the ancient custom of the *Mahrattas**. The army under his command was very numerous, and they set out on their expedition without delay, but, as soon as they had passed the *Nerbuddat*, the Bhow began to exercise his authority in a new and offensive manner, and both in settling the accounts of the army and revenue, and in all public business, he showed a capricious and self-conceited conduct. He totally excluded from his council MULHAR Row and all the other chiefs, who were experienced in the affairs of *Hindoostan*, and who had credit and influence with the principal people in that country, and carried on every thing by his own opinion alone.

When he came to *Seronga*, he dispatched *Vakeels* with presents to all the principal chiefs in *Hindoostan*, inviting them to an alliance and co-operation with him, for the purpose of settling the affairs of *Hindoostan*. Among the rest a *Vakeel* came with the above proposal to the *Narab Sust ja-ul-Dowla*, bringing with him a present of fine cloths and jewels, to a considerable amount, and informing him at the same time, that whenever the Bhow should arrive near him, he would dispatch *Naroo Shunkar* to conduct *Saujan-ul-Dowla* to him. *Shuja ul Dowla* answered him in the language of profession, but determined in his own mind to keep himself disengaged from both parties, and to be a spectator of the expected contest till his future conduct should be determined by the event, when he designed to join the visitors.

* Properly *Maharashtra*

+ Properly *Narmada*

AHMEN SHAH DURRANY, after the defeat of DATTEA JEE PUTUL SINGH, cantoned his army in the district of *Anusbour*, upon the banks of the *Ganges*, and DATTEA JEE PUTUL himself having been killed in an action with NL JEIB-UL-DOWLAH, the latter was apprehensive of the consequences of the resentment of the *Mahrattas*, and therefore united himself closely with the DURRANY SHAH, who was himself exalted to invade *Hindostan* by a wish to revenge the defeat of his General JEHAN KHAN the preceding year, but still by the solicitations of NL JEIB-UL-DOWLAH, who agreed to hear the extra charges of the SHAH's army, and, being himself a man of great military reputation, as well as an able politician, had persuaded all the *Rohilla* chiefs and the *Patahs* of *Ferozbabad* to join the DURRANY SHAH.

The BHOW, besides his own *Decary* troops, had brought with him all the auxiliaries that he could collect in *Malwa*, *Jassye*, &c under the command of the several *Azims*, such as NAROO SHIVKER and others, and, as soon as he arrived at the river *Chumbul*, he sent a confidential person to *Reya Surja Mul*, chief of the *Jats*, proposing a conference, and that *SURJA MUL* should enter into alliance with him. *SURJA MUL* sent him word in reply, that his negotiations with the *Mahrattas* had always been conducted through the mediation of *MULHAR ROW* and the *SINDEAS*, and that, if they chose to interfere on the present occasion, he was ready to wait on the BHOW. The BHOW from necessity asked those chiefs to assist him in this matter, which they having consented to, as soon as the army of the *Mahrattas* approached to *Agra*, *SURJA MUL* paid his respects to the BHOW, and the conversation turning on the most advisable mode of conducting the war, *SURJA MUL* said, " You are the master of *Hindostan*, " possessed of all things, I am but a *Zemindar*, yet will give my advice
 " according

" according to the extent of my comprehension and knowledge In the
 " first place, the families of the chiefs and soldiers, the large train of bag-
 " gage, and the heavy artillery, will be great impediments to carrying on
 " the kind of war which you have now in hand Your troops are more
 " light and expeditious than those of *Hindostan*, but the *Durrans* are still
 " more expeditious than you It is therefore advisable to take the field
 " against them quite unincumbered, and to leave the superfluous baggage
 " and followers, on the other side of the *Chumbul*, under the protection
 " of *Jansye* or *Gualkar*, which places are under your authority

" Or, I will put you in possession of one of the large forts in my coun-
 " try, *Deeg*, or *Combeir*, or *Buripoor*, in which you may lodge the baggage
 " and followers, and I will join you with all my forces In this arrange-
 " ment, you will have the advantage of a free communication with a friend-
 " ly country behind you, and need be under no apprehensions respecting
 " supplies to your army, and there is reason to believe, that the enemy
 " will not be able to advance so far, but will by this plan of operations
 " be obliged to disperse, without effecting any thing "

MULHAR ROW and the other chiefs approved of this advice, and ob-
 served, " that trains of artillery were suitable to the royal armies, but that
 " the *Mabratto* mode of war was predatory, and their best way was to
 " follow the method to which they had been accustomed, that *Hindostan*
 " was not their hereditary possession, and, if they could not succeed in re-
 " ducing it, it would be no disgrace to them to retreat again. That the
 " advice of SURJA MUL was excellent, and that the plan which he propof-
 " ed, would certainly compel the enemy to retreat, as they had no fixed
 " possesstio

" possession in the country. That their object for the present, therefore,
 " should be to gain time till the breaking up of the rains, when the *Durra-*
 " *mas* would certainly return to their own country."

Notwithstanding that all the *Mahratta* chiefs were unanimous in recommending this plan, the Bhow, relying on the strength of his army, and his own courage and ability, would not listen to it, but said, " that his inferiors " had acquired military reputation by their actions in that country, and " it never should be reproached to him, that he, who was the superior, had " gained nothing but the disgrace of acting defensively " And he reproached MULHAR Row with having outlived his activity and his understanding at the same time saying " that SURJA MUL was only a *Zemindar*, " that his advice was suitable enough to his rank and capacity, but not " worth the consideration of men so much his superiors."

Men of wisdom and experience were surprised at this arrogance and obstinacy in a man, who always formerly had shown so much good sense and circumspection, as the Bhow had done till this expedition, and concluded, that fate had ordained the miscarriage of their enterprise Every one became disgusted by his harsh and offensive speeches, and they said among themselves, " it is better that this *Brabman* should once meet with " a defeat, or else what weight and consideration shall we be allowed?"

The Bhow posted a body of troops to prevent SURJA MUL from leaving the camp this alarmed him very much, but, as all the chiefs were of one opinion, MULHAR Row and the rest advised him not to be hasty, but to act as circumstances should direct, and, for the present, to remain for the satisfaction of the Bhow

After this the Bhow marched from *Agra* to *Debly*, and at once laid siege to the royal castle, where YALOOP ALY KHAN (who was nephew to the *Durrany Vizier*, SHAH VULLI KHAN) commanded, and summoned him to surrender the castle, after the batteries had played some days YACOOB ALY KHAN finding that resistance was vain, by the advice of SHAH VULLI KHAN, capitulated through the other *Mabrosta* chiefs mediation, and delivered the castle up to the Bhow, who entered it with Biswas Row, and seized upon a great part of the royal effects that he found there especially the ceiling of the great hall of audience, which was of silver, and made at an immense expense, was pulled down and coined into seventeen lacs of rupees Many other actions of the same kind were done, and it was generally reported to be the Bhow's design to get rid of such of the principal *Hindostany* chiefs as stood in his way, and, after the DURRANY SHAH should return to his own country, to place Biswas Row upon the throne of *Debly*. This intelligence was brought to the *Navab Shuja-ul-Dowlah*, and it is on his authority that I relate it.

In the mean time the rains set in, and the Bhow cantoned his army in *Debly*, and for twelve days remained in, residing himself in the castle; while AHMED SHAH DURRANY remained in cantonments near *Anusshair* Nujib-ul-Dowlah gave him exact information of every thing that passed, upon which intelligence the SHAH told him, "that, as SHUJA-UL-DOWLAH " was a chief of great weight and power, and vizier of *Hindostan*, it was of " the greatest importance to secure him to their interest, and to persuade " him to join them, for that, should he be gained by the *Mabratias*, the " worst consequences must arise from it. That it was not necessary that " he should bring a large army with him his coming even with a few " would very considerably strengthen their cause. That on a former occa-

“ sion, when he (AHMED SHAH) invaded Hindostan, SHUJA-UL-DOWLAH’s “ father, SUFDAR JUNG, had opposed him, and been the principal means “ of his failure. That no doubt this would make SHUJA-UL-DOWLAH “ apprehensive and suspicious of him, and therefore NUJEIB-UL-DOWLAH “ must endeavour by every means to get the better of that obstacle, lest “ SHUJA-UL DOWLAH should join the opposite party That this was a ne- “ gociation too nice and important to be conducted by *Vakeels*, or by let- “ ters, and that therefore NUJEIB-UL-DOWLAH must go himself with a small “ escort, and in person prevail on SHUJA-UL-DOWLAH to join them ”

AHMED SHAH DURRANY and his vizier, SHAH YULLI KHAN, sent written treaties of alliance, and the *Koran* sealed with their seals, by NUJEIB-UL-DOWLAH, who, taking his leave of the DURRANY SHAH, set out with an escort of two thousand horse, and in three days got to *Mind Gant*, on the *Ganges*

SHUJA-UL-DOWLAH, some time before this, had been encamped on his frontier near the *Ganges*, for the protection of his country, and, receiving information of NUJEIB-UL-DOWLAH’s sudden arrival, he found himself under the necessity of giving him a meeting, and showing him all the honours which hospitality and politeness demanded NUJEIB-UL-DOWLAH showed him the treaties proposed by the DURRANY SHAH, and gave him every assurance and encouragement possible, both from the DURRANY SHAH and from himself, and explained to him also the perils of their own situation “ For my own part,” said he, “ I give over every hope of safety, “ when I reflect that the Bhow is my declared enemy, but it behoves you al- “ so to take care of yourself, and to secure an ally in one of the parties and, “ as you know the Bhow bears a mortal hatred to all *Mussulmans*, whenever “ he

" he has the power to show his enmity, neither you nor I, nor any other
 " *Musselman*, will escape Though, after all, the destiny of God will be
 " fulfilled, yet we ought also to exercise our own faculties to their utmost
 " From my friendship to you, I have come this distance to explain things to
 " you, though averse from all unnecessary trouble Now consider and de-
 " termine The *Begum* your mother is capable of advising us both con-
 " fult her upon the occasion, as well as the rest of your family, and deter-
 " mine on what you shall think best "

After considering the matter for two or three days, SHUJA-UL-DOWLAH concluded, that it would be very unsafe and improper to join the *Mahrattas* and to decline the proffered friendship of the other party, would be impolitick, especially after their deputing a man of NUJFIЯ-UL-DOWLAH's rank to him, and would never be forgiven either by the SHAH or the *Rohilla* chiefs. Yet the danger appeared very great, whether the victory should fall to the *Mahrattas*, or to the *Durrani*s He at length however determined to follow the advice of NUJFIЯ-UL-DOWLAH, and to join the DURRANI SHAH He accordingly dispatched his women to Lucknow, appointed Raja BENI BEHADER Nasib Subab during his absence, and, setting out with NUJFIЯ-UL-DOWLAH, and arriving at the *Durrani* camp near *Anuffhaur*, was presented to AHMED SHAH DURRANI, who treated him with the greatest consideration and honour, told him that he considered him as one of his own children, that he had waited for his arrival, and now would shew him the punishment of the *Mahrattas*, with many proofs of his friendship He at the same time proclaimed it through his own camp, that no *Durrani* should presume to commit any violence or irregularity in SHUJA-UL-DOWLAH's camp that any one who did, should be put to immediate death, adding, that SHUJA-UL-DOWLAH was the son of SUFDER

Jtse, the guest of AHMED SHAH's family; and that he considered him as dear as his own child. The grand vizier SHAH VULLI KHAN, who was a man in the highest esteem and respect with all ranks, called SHUJA-UL-DOWLAH his son also, and treated him with the highest distinction.

As the common soldiers among *Durrani*s are stubborn and disobedient, notwithstanding the SHAH's proclamation, they committed some irregularities in SHUJA-UL-DOWLAH's camp. The SHAH, hearing of this, had two hundred of them seized upon, and, having had their noses bored through with arrows, and strings passed through the holes, they were led in this condition, like camels, to SHUJA-UL-DOWLAH, to be put to death or pardoned, at he should think proper. He accordingly had them released; and from that time none of the *Durrani* soldiers made the least disturbance in SHUJA-UL-DOWLAH's camp.

Soon after this, though the rains were still at their height, the SHAH marched from *Anufshair*, and cantoned his army at *Shebdera*, on the bank of the *Jamna*, opposite to the city of *Debbi*. Many posts of the *Mahratta* army were within sight; but the river was too deep and rapid to be passed.

The BHOW sent BOWANT SHUNKER PUNDIT, a native of *Aurungabad*, and a man of good sense and experience, with some overtures to SHUJA-UL-DOWLAH; telling him that there was no ground for enmity between the *Mahrattas* and his Excellency's family, on the contrary, they had formerly given great support and assistance to SUDER JUNG, SHUJA-UL-DOWLAH's father. Why then did the *Navab* join their enemies? That their not having long since desired him to join them in person, was solely owing to their unwillingness to give him inconvenience. That now it was

by

by all means necessary for him to join them, or at least to separate himself from the other party, and to send some person of character and rank, on his part, to reside within the camp.

Accordingly the *Naub* sent RAJA DEBYDUT, a native of *Debb*, who was in his service, a man of great eloquence (whose father had been the royal treasurer during the administration of the *Syeds*; and he himself had been one of the household during the reign of MOHAMMED SHAH) to accompany BOWANY SHUNKER. The *Naub* also sent Row CASY RAJ (the writer of this narrative) who had been in the service of SURDER JUNG, and much favoured by him. His Excellency told BOWANY SHUNKER that I (CASY RAJ) was also a *Decary*, and introduced me to him in his own presence; where we soon recognized our being of the same cast and country. BOWANY SHUNKER wrote the Bhow word of my being employed in this affair; upon which the Bhow caused a letter to be written to me in the *Decan* language, but as there was some deficiency in the form of address, I did not reply to it. The Bhow inquired of BOWANY SHUNKER why I neglected to answer his letter, which being explained, he was very angry with his *Murshy*.

When *Raja* DEBYDUT got to the Bhow's camp, the negotiation began, but the Bhow being dissatisfied with this agent, he sent BOWANY SHUNKER back to tell SHUJA-UL-DOWLAH that *Raja* DEBYDUT was too unguarded a man to be entrusted with secrets of such importance he therefore desired the *Naub* would send a trusty man entirely to be relied on, and send word by him precisely what steps were to be pursued.

At the same time other overtures came from MULHAR ROW and *Raja*
SURJA

SURJA MUL, to know what part they should act. All these proposals the *Nawab* communicated exactly to *NUJEIB-UL-DOWLAH* and the grand vizier, and negotiated with the *Mahrattas* by their advice.

NUJEIB-UL-DOWLAH threw every obstacle that he could in the way of peace; but the grand vizier told *SHUJA-UL-DOWLAH*, that, if a peace could be brought about through his means, it would be better, that he was very willing to forward it, and would engage to obtain the *SHAH*'s concurrence. In fact, he was at this time on but indifferent terms with *NUJEIB-UL-DOWLAH*.

At length it was resolved to send the eunuch *MOHAMMED YAOOB KHAN* with their proposals to the *Mahrattas*, and to tell them from *SHUJA-UL-DOWLAH*, that he acknowledged the friendship which had always subsisted between them and him, that however it was neither proper nor practicable for him to join them, but that on every proper occasion he was ready to manifest his friendship, by giving them the best intelligence and advice, and, since they asked his opinion in the present instance, he would advise them to avoid attempting any other mode of carrying on the war, than the predatory and desultory one, to which they were accustomed or that, if they preferred peace, means should be devised for obtaining it.

They at the same time wrote to *Raja SURJA MUL*, advising him to quit the *Mahrattas*, and return to his own country, which advice coinciding with his own opinion, he promised to follow it.

The *Bhow*, in answer to *SHUJA-UL-DOWLAH*, acknowledged the kindness of his advice and conduct, and promised to pay attention to what he had

had said. That as to peace, he had no cause of quarrel with the DURRANY SHAH, who might march back to his own country, whenever he pleased, that all the country on the other side of the *Attock* should remain in the possession of the SHAH, and all on this side of it should belong to the chiefs of *Hindostan*, who might divide and settle it as they could agree among themselves. Or, if this should not satisfy the SHAH, he should possess as far as *Labore*. Lastly, he said, that, if the SHAH insisted on still more, he should have as far as *Sirhind*, leaving the remainder to the chiefs of *Hindostan*, as was said before. With this answer, YACOOB KHAN returned.

Two days after this, SURJA MUL, who was encamped at *Bidderpoor*, six miles from *Dabbi*, by the advice of MULHAR ROW and the other disaffected chiefs, under pretence of changing the ground of his encampment, sent off all his baggage and camp-followers towards his own country, and, when he received intelligence that they had got ten miles on their way, he followed them with his divisions of troops, and had got a great distance, before the Brown heard of his departure. In a day and two nights he marched fifty miles, and reached the strong holds of his own country.

The Brown made no account of his defection, only saying, that such conduct was to be expected from mere *Zemindars*, that his going was of no importance, but rather to be rejoiced at, since he did not quit them at any time, when they might have relied on him for material service.

MAHOMMED YACOOB KHAN, returning to camp, reported all the Brown's overtures, but, as neither party were sincerely in earnest, the negotiation went on but slowly.

Meantime,

Meantime, the rains drawing near to an end, the Shah determined to reduce the strong post of *Kunipore*, which is situated on the banks of the *Jumna*, about fifty cose above *Delly*, at that time occupied by about 10,000 *Rohillas*, as the possession of that place would secure his passing the river to attack the SHAH. He accordingly marched from *Delly*, and, arriving at *Kunipore*, assaulted it with fifteen thousand chosen men; and after an obstinate resistance made himself master of the place, taking the governor DULEIL KHAN, and all the garrison prisoners, and delivering up the place to plunder. The *Durrany* SHAH had exact intelligence of all this proceeding, and was very desirous of relieving *Kunipore*; but the *Jumna* was yet impassible.

Soon after the rains broke up, and the *Duffars* arrived: the SHAH gave orders, that the day before the *Duffars*, all the army should be assembled for muster; which being done, he reviewed them himself from an eminence in front of the camp

The *Durrany* army consisted of twenty-four *Duffas* (or regiments) each containing twelve hundred horsemen. The principal chiefs in command under the SHAH, were the grand vizier SHAH VULLI KHAN,—JEHAN KHAN,—SHAH PUSSUND KHAN,—NUSSIR KHAN BELOCHE,—BERKHORDAR KHAN,—Vizier ULLA KHAN Kizelbaghi,—MORAD KHAN, a Persian Moghol.—Besides these principal chiefs, there were many others of inferior rank; and of the twenty-four *Duffas* above-mentioned, six were of the SHAH's slaves, called *Keleras*.

There were also two thousand camels, on each of which were mounted two musketeers, armed with pieces of a very large bore, called *Zumburucks*.

forty pieces of cannon, and a great number of *shuterrals*, or swivels, mounted on camels this was the strength of the *Durrany* army.

With the *Nawab* SHUJA-UL-DOWLAH there were two thousand horse, two thousand foot, and twenty pieces of cannon of different sizes.

With NUJEIB-UL-DOWLAH, six thousand horse and twenty thousand *Rabiles* foot, with great numbers of rockets.

With DOONNY KHAN and HATIZ RAHMUT KHAN, fifteen thousand *Rasilla* foot and four thousand horse, with some pieces of cannon;

And with AHMED KHAN BUNCASH, one thousand horse, one thousand foot, with some pieces of cannon, making altogether forty-one thousand eight hundred horse, and thirty-eight thousand foot, with between seventy and eighty pieces of cannon,

This I know to have been precisely the state of the *Mussulman* army, having made repeated and particular inquiries before I set it down, both from the duster (or office) of musters, and from those by whom the daily provisions were distributed. But the numbers of irregulars who accompanied these troops, were four times that number, and their horses and arms were very little inferior to those of the regular *Durranyes*. In action, it was their custom immediately after the regulars had charged and broken the enemy, to fall upon them sword in hand, and complete the rout. All the *Durranyes* were men of great bodily strength, and their horses of the *Turk* breed; naturally very hardy, and rendered still more so by continual exercise.

AHMED SHAH DURRANT issued orders to his army to be ready to march two days after the muster.

On the other side, the Bhow, having reduced *Kumpoora*, returned to *Debjy*, and ordered a muster of his army; when the strength of it appeared to be as follows:

Under IBRAHIM KHAN GARDER, two thousand horse, and nine thousand sepoys with firelocks, disciplined after the *European* manner; together with forty pieces of cannon.

The <i>Khās Pāgāb</i> , or household troops,	6,000 horse.
MULHAR ROW AND HULKER,	5,000 horse.
JUNKOOJEE SINDIA,	10,000 horse.
AMAJEE GUICKWAR,	3,000 horse.
JESWANT ROW, POWAR,	2,000 horse.
SHUMSHERE BEHADER,	3,000 horse.
BELAJEE JADOOON,	3,000 horse.
RAJAH BETUL SHUDEO,	3,000 horse.
BULMONT ROW, brother-in-law to the BHOW, and his great adviser in every thing,	7,000 horse.
BISWAS ROW's own Pāgāb,	5,000 horse.
ANTAJEE MANKESER,	3,000 horse.

There were several other smaller bodies, which cannot now be recollect'd the whole army amounted to fifty-five thousand horse, and fifteen thousand foot, including IBRAHIM KHAN's sepoys

There were also two hundred pieces of cannon, and rockets and *shuster-sals* without number.

Besides

Besides these, the *Pusdary* chiefs, CHURGORY and HOOL SEWAE, had fifteen thousand *Pindarries* under their authority; and there were two or three thousand horse with the *Rhatore* and *Gutchwa* vakeels. These, with five or six thousand horse more, were left to guard *Deshi*, under command of BOWANY SHUNKER.

Two days after the *Daffara*, which was the 17th of October 1760, AHMED SHAH DURRANI marched from his camp, ordering his baggage to follow the army, and marching all night, encamped next day at the ford of *Baugput*, eighteen cosrs above *Deshi*. He searched in vain for the ford, the river being still very high, and several horsemen, attempting to pass, were drowned. The SHAH having fasted and performed religious ceremonies for two days, on the third a ford was discovered, but it was very narrow, and on each side the water was so deep, as to drown whoever went the least out of the proper track.

The troops began to pass the ford on the 23d of October, and the SHAH himself passed as soon as half of his army was on the other side. The whole army was completely crossed in two days, but from their numbers and the great expedition used, many people lost their lives.

As soon as the army had crossed, the SHAH marched towards the enemy, who also moved to meet him, and on the 26th of October, in the afternoon, the *Hereswai* (or advanced guard) of the two armies, met each other near *Sumalkeb Seray*, and an action ensued, in which the *Mahrattas* had the disadvantage, and retreated at sun-set with the loss of near two thousand men, while not more than one thousand were killed and wounded on the part of AHMED SHAH. The SHAH's army returned to their camp.

The next day ARMED SHAH moved forward again, and so on for several days successively, constantly skirmishing, but still gaining ground on the *Mabratteas*, till they came to *Pampat*, where the Bhow determined to fix his camp, which he accordingly did, and inclosed that, as well as the town of *Pampat*, with a trench sixty feet wide and twelve deep, with a good rampart, on which he mounted his cannon. The SHAH encamped about four cos from the *Mabratteas* lines, and, as he had always during his march, surrounded his camp at night with felled trees, so in this camp, which was to remain fixed for some time, the abattis was made something stronger, and the chiefs encamped in the following order.

The SHAH in the centre;
 On his left, SHUJA-UL-DOWLAH,
 On his left, NUJEIB-UL-DOWLAH,
 On the right of the SHAH, HAFIZ RAHMUT KHAN;
 On his right, DOONDI KHAN,
 On his right, AHMED KHAN BUNCUS.

The space occupied by the whole front was near three cos and a half

The Bhow had before given orders to GOSIND PUNDIT, who had the command and collections of *Korab*, *Kurrak*, *Eitawa*, *Shekobad*, and the rest of the *Deob*, as well as of *Kalpas*, and other districts across the *Jumna*, as far as *Sagbur*, to collect all the forces he possibly could, and to cut off all communication for provisions from the rear of the SHAH's army. GOSIND PUNDIT having got together ten or twelve thousand horse, advanced as far as *Mirbet*, in the rear of the SHAH, and so effectually cut off all supplies, but the SHAH's army was in the greatest distress for provisions, coarse flour selling for two rupees per seer, and the troops consequently

very

very much disatisfied. The SHAH therefore detached ATTAI KHAN, nephew to the grand vizier, with a *Dyss*, consisting of two thousand chosen horse, and ordered him to march day and night, till he should come up with GO-BIND PUNDIT, and having cut off his head, to bring it to the presence. He set out accordingly, being joined by eight or ten thousand of the irregulars, and having marched about forty eofs during the night, at day break they fell like lightning upon the camp of GOBIND PUNDIT; where, having no intelligence of the *Durrani* approach, they were seized with terror and amazement, and fled on all sides. GOBIND PUNDIT himself attempted to escape upon a *Turk* horse, but being old, and not a very expert horseman, he was thrown off in the pursuit, and the *Durrani* coming up, cut off his head and carried it to camp, where it was recognized for the head of GOBIND PUNDIT.

After plundering the enemy's camp, and driving away their scattered troops on all sides, ATTAI KHAN returned to the SHAH's camp, the fourth day from that on which he was detached, and presented his Majesty with the head of GOBIND PUNDIT. The SHAH was highly pleased with this effectual performance of his orders, and bestowed a very honourable *Kholat* on ATTAI KHAN. After this action, the *Durrani* army was constantly supplied with provisions.

The BHOW was much affected with this news, especially as it was accompanied with other events little favourable to his cause—but as he was a man of dignity and resolution, he never betrayed any despondency, but made light of all the adverse circumstances which occurred.

Soon after the defeat of GOBIND PUNDIT, the BHOW sent two thousand horse to *Dehly*, to receive some treasure from NAROO SHUNKER, for the use of the ar-

my. These troops were instructed to march privately, by night, and by un-frequented roads, and each man to have a bag of two thousand rupees given him to carry, as far as the sum they should receive would go. They executed their orders completely, as far as to the last march, on their return to the camp, but unluckily for them, the night being dark, they mistook their road, and went strait to the *Durras* camp instead of their own. On coming to the outposts, thinking them those of their own camp, they began to call out in the *Mabratte* language, which immediately discovering them to the *Durrases*, they surrounded the *Mabratte*, cut them to pieces, and plundered the treasures.

From the day of their arrival in their present camp, AHMED SHAH DURRAS caused a small red tent to be pitched for him a cosa in front of his camp, and he came to it every morning before sun-rise, at which time, after performing his morning-prayer, he mounted his horse, and visited every post of the army, accompanied by his son TIMOUR SHAH and forty or fifty horsemen. He also reconnoitred the camp of the enemy, and, in a word, saw every thing with his own eyes, riding usually forty or fifty cosas every day. After noon he returned to the small tent, and sometimes dined there, sometimes at his own tents in the lines; and this was his daily practice.

At night there was a body of five thousand horse advanced as near as conveniently might be, towards the enemy's camp, where they remained all night under arms other bodies went the rounds of the whole encampment; and AHMED SHAH used to say to the *Hindoo* chiefs, "Do you sleep, I will " take care that no harm befalls you " and to say the truth, his orders were obeyed like destiny, no man daring to hesitate or delay one moment in executing them.

Every day the troops and cannon on both sides were drawn out, and a distant cannonade with many skirmishes of horse took place; towards the evening both parties drew off to their camps. This continued for near three months during this time there were three very severe, though partial, actions.

The first was on the 29th November 1760, when a body of *Mahrattas*, about fifteen thousand strong, having fallen upon the grand vizier's post on the left of the line, pressed him very hard, till a reinforcement coming to his assistance, the action became very obstinate the *Mahrattas*, however, gave way about sun-set, and were pursued to their own camp with great slaughter. Near four thousand men were killed on the two sides in this action.

The second action was on the 23d of December 1760, when *Nujeib-ul-Dowlar* having advanced pretty forward with his division, he was attacked with so much vigour by *Bulmont Row*, that his troops gave way, and only fifty horsemen remained with him, with which small number, however, he kept his ground, till a reinforcement came to his assistance; the action was then renewed with great fury, and above three thousand of *Nujeib-ul-Dowlar*'s men were killed or wounded Among the killed was *Khalil-ul-Rahman*, uncle to *Nujeib-ul-Dowlar*. In the last charge, which was at near nine o'clock at night, *Bulmont Row* was killed by a musket-ball upon which both parties retired to their own camps.

The third action was much in the same way, and thus every day were the two armies employed, from morning to nine or ten at night, till at length the *Hindostany* chiefs were out of all patience, and entreated the *Shah* to put an end to their fatigues, by coming at once to a decisive action, but his constant answer

answer was, " This is a matter of war, with which you are not acquainted.
" In other affairs do as you please, but leave this to me. Military operations must not be precipitated. You shall see how I will manage this affair, and at a proper opportunity will bring it to a successful conclusion."

As the *Durrany* army was vigilant both by day and night, to prevent the approach of any convoys, there began to be a great scarcity of provisions and forage in the *Mabratia* camp.

One night when about twenty thousand of their camp-followers had gone out of the lines, to gather wood in a jungle at some distance, they happened to fall in with a body of five thousand horse, under the command of SHAH PUSSUND KHAN, who had the advanced guard that night, and who surrounded them on all sides, put the whole to the sword, no person coming to their assistance from the *Mabratia* camp. In the morning, when the affair was reported to the SHAH, he went out with most of his chiefs to the scene of the slaughter, where dead bodies were piled up into a perfect mountain!—so great had been the destruction of those unhappy people.

The grief and terror which this event struck into the *Mabraties*, is not to be described; and even the Bhow himself began to give way to fear and despondence.

There was a news-writer of the Bhow's, called GONNIESH PUNDIT, who remained in the camp of the *Nawab* SHUJA-U-L-DOWLAH, but not being of sufficient importance to obtain access to the *Nawab*, any business that he had with the *Durbar*, he transacted through my means. Through this channel the Bhow often wrote letters to me, with his own hand, desir-

ing

ing that I would urge the *Nawab* to mediate a peace for him, as conjunct
don with the grand vizier; that he was ready to submit to any conditions,
if he could but preserve himself and his army, and would by every means mani-
fest his gratitude to the mediators. He also sent a handful of saffron (as is a
custom with these people) and a written engagement (to which he had sworn)
to abide by this promise, together with a turban set with rich jewels, as an
exchange for one to be received from the *Nawab*, who also returned proper
presents, and promised to assist him.

The *Nawab* often sent me to the vizier upon this business. He was also
very well disposed to listen to the Bhow's proposals, and spoke to the SHAH
about it. The SHAH said, "that he had nothing to do in the matter, that he
" came thither at the solicitation of his countrymen the *Rabbis*, and other
" *Mussulmans*, to relieve them from their fear of the *Mahratta* yoke; that he
" claimed the entire conduct of the war, but left the *Hindostany* chiefs to
" carry on their negotiations as they pleased, themselves."

All the other chiefs, HAFIZ RAHMUT KHAN, DOONDY KHAN, and AHMED
KHAN BUNGUSH, were also satisfied to make peace with the Bhow, but
every one stipulated that NUJEIB-UL-DOWLAH must also be satisfied to do
so, otherwise they could not consent. Accordingly the *Nawab* SHUJA-UL-
DOWLAH sent me to talk over the matter with NUJEIB-UL-DOWLAH, and
to obtain his consent. I therefore waited upon him, and, in a long pri-
vate conference, I explained every thing that had passed, and urged
every argument to persuade him to come into the views of the other
chiefs; to which he replied in nearly the following words — " SHUJA-UL-
" DOWLAH IS THE SON OF A MAN, WHOM I LOOK UP TO AS MY SUPERIOR; AND I
" CONSIDER HIM ALSO IN THE SAME LIGHT, BUT AT THE SAME TIME, HE IS YOUNG

" and unacquainted with the world: he does not see to the bottom of things.
 " This business is a deception: when an enemy is weak and disheartened, there
 " is no concession that he will not make, and, in the way of negotiation, will
 " swear to any thing, but oaths are not chains, they are only words After
 " reducing an enemy to this extremity, if you let him escape, do you think
 " he will not seize the first opportunity to recover his lost honour and
 " power? At present we may be said to have the whole *Deccan* at our
 " mercy; when can we hope for another juncture so favourable? By one
 " effort we get this thorn out of our sides for ever—Let the *Nawab* have
 " a little patience; I will wait upon him myself, and consult what is best to
 " be done "

After this answer, I left NUGEIB-UL-DOWLAH, and returned to my master, to whom I repeated all that had passed, assuring him that NUGEIB-UL-DOWLAH would never be brought to agree to any terms of pacification.

As soon as I had left NUGEIB-UL-DOWLAH, though it was the middle of the night, he went immediately to the SHAH, and informed him of what had passed. " All the chiefs (said he) are inclined to make peace with the *Mabrat-sas*, but I think it by no means adviseable. The *Mabrat-sas* are the thorn " of *Hindostan*; if they were out of the way, this empire might be your Ma- " jesty's whenever you should please. Do as seems fit to yourself. For my " own part, I am a soldier of fortune, and can make terms with whatever " party may prevail."

The SHAH replied, " You say truly. I approve of your counsel, and will " not listen to any thing in opposition to it. SHUJA-UL-DOWLAH is
 " young

" young and inexperienced, and the *Mahrattas* are a crafty race, on whose pretended penitence no reliance is to be placed I from the beginning made you the manager of this affair, act as seems best to yourself in my situation I must hear every one, but I will not do any thing against your advice."

Next day NUIZIB-UL-DOWLAH came to Shuja-ul-Dowlah's tent, where they consulted till late at night, but without coming to any conclusion.

By this time the distresses in the Brow's camp were so great, that the troops plundered the town of *Parsipur* for grain, but such a scanty supply gave no relief to the wants of such multitudes. At length the chief and soldiers, in a body, surrounded the Brow's tent, and said to him, " it is now two days that we have not had any thing to eat, do not let us perish in this misery, let us make one spirited effort against the enemy, and whatever is our destiny that will happen" The Brow replied, that he was of the same mind, and was ready to abide by whatever they should resolve upon. At length it was determined to march out of the lines an hour before day-break, and placing the artillery in front, to proceed to the attack of the enemy. They all swore to fight to the last extremity, and each person took a *date-leaf* in the presence of his fellows, in confirmation of this engagement, as is the custom among the *Hindoo*s.

In this last extremity, the Brow wrote me a short note with his own hand, which he sent by one of his most confidential servants. The words of the note were these —

" The cup is now full to the brim, and cannot hold another drop: If any thing can be done, do it, or else answer me plainly at once; hereafter there will be no time for writing or speaking "

This note arrived about three in the morning, at which time I was with the *Naub*. As soon as I had read it, I informed his Excellency of its contents, and called in the man who brought it; who told the *Naub* all that had happened in the *Mahratta* camp. While he was doing this, the *Naub*'s horse-riders brought word, that the *Mahrattas* were coming out of their lines, the artillery in front, and the troops following close behind.

Immediately on hearing this, his Excellency went to the *SHAH*'s tent, and desired the eunuchs to wake his Majesty that moment, as he had some urgent business with him.

The *SHAH* came out directly, and inquired what news: the *Naub* replied, that there was no time for explanation, but desired his Majesty to mount his horse, and order the army to get under arms. The *SHAH* accordingly mounted one of his horses, which were always ready saddled at the tent-door, and, in the dress he then had on, rode half a coss in front of his camp, ordering the troops under arms as he went along.

He enquired of the *Naub* from whom he had his intelligence, and, he mentioning my name, the *SHAH* immediately dispatched one on a post-camel to bring me. After I had made my obeisance, he asked me the particulars of the news. I replied, that the *Mahratta*s had quitted their lines, and would attack his army as soon as it should be light. Just at this time some *Durrani* horsemen passed by, with their horses loaded with plunder,

which

which they said they had taken, in the *Mahratta* camp; and added, that the *Mahrattas* were running away. The SHAH looked at me, and asked me what I said to that? I replied, that a very short time would prove the truth or falsehood of my report. While I was speaking, the *Mahrattas*, having advanced about a cosa and a half from their lines, and got their cannoo drawn up in a line, all at once gave a general discharge of them.

Upon hearing this, the SHAH, who was sitting upon his horse, smoking a *Perfian Kellan*, gave it to his servant, and, with great calmness, said to the *Nawab*, "your servant's news is very true, I see." He immediately sent for the Grand Vizier and SHAH PUJSUND KHAN, who came accordingly he ordered SHAH PUJSUND KHAN to take post, with his division, on the left of *Najis-ul-Dowlah*, and consequently of the whole line, the Grand Vizier to take post with his division, in the centre of the line; and BERKHORDAR KHAN, with some other chiefs, with their troops, on the right of HAFIZ RAHMUT KHAN, and AHMED KHAN BUNGUSH, consequently of the whole line. When this was done, he ordered the trumpets and other instruments to sound to battle.

By this time objects began to be discernible, and we could perceive the colours of the *Mahratta* line advancing slowly and regularly, with their artillery in front. The SHAH rode along the front of the line, and examined the order of all the divisions. He then took post, where his little tent was pitched, in front of his camp, but in the rear of the prefet line of battle, and gave orders for the attack to begin.

The *Mahratta* army faced towards the eastward, and their order was as follows, reckoning from the left flank of their line:

ISRAHIM KHAN GARDIE,
 AMAJEE GUICKWAE,
 SHU DEO PATEIL,
 The BHOW, with BISWAS ROW and the household
 troops,
 JESWONT ROW POWAR,
 SHUMSHERE BEHADER,
 MULHAR ROW,
 JUNKOOJEE SINDIA, &c.

} Front.

The whole artillery, *shutars*, &c. were drawn up in front of the line.

The *Mussulman* army faced toward the westward, and was drawn up as follows, reckoning also from the left flank of their line.

SHAH PUSSUND KHAN,
 NUJEIB-UL-DOWLAH,
 SHUJA-UL-DOWLAH,
 The Grand Vizier SHAW YULLI KHAN,
 AHMED KHAN BUNGUSH,
 HAFIZ RAMPUT KHAN,
 DOONDY KHAN,
 AMIR BEG KHAN, and other *Perfian Moghuls*,
 BERKHORNAH KHAN,

} Front.

All the artillery and rockets were in front of the line. Behind them were the camels, mounted by the musketeers carrying *Zumberucks*, supported by a body of *Perfian* musketeers.

The

The two armies facing each other rather obliquely, the divisions of BERKHORDAR KHAN, AMIR BEG, and DOONDY KHAN, were very dear to that of IBRAHIM KHAN GARDEE. The plan of the battle here annexed will explain this more clearly than any description in writing can do.

On the 7th of January 1761, soon after sun-rise, the cannon, musketry, and rockets began to play without intermission, yet our army suffered but little by them, for the armies continuing to advance towards each other, the *Mahratta* guns being very large and heavy, and their level not easily altered, their shot soon began to pass over our troops, and fell a mile in the rear. On our side, the cannon fired but little, except from the Grand Vizier's division.

As the armies were advancing towards each other, IBRAHIM KHAN GARDDE rode up to the Bow, and, after saluting him, he said, "you have long been displeased with me, for insisting on the regular monthly pay for my people, this month your treasure was plundered, and we have not received any pay at all, but never mind that, this day I will convince you that we have not been paid so long without meriting it."—He immediately spurred his horse, and returning to his division, he ordered the standards to be advanced, and taking a colour in his own hand, he directed the cannon and musketry of his division to cease firing; then leaving two battalions opposed to BERKHORDAR KHAN and AMIR KHAN's division, to prevent their taking him in flank, he advanced with seven battalions to attack DOONDY KHAN and HAFIZ RAHMUT KHAN's division with fixed bayonets. The *Rebilles* received the charge with great resolution, and the action was so close, that they fought hand to hand. Near eight thousand *Rebilles*

billies were killed or wounded, and the attack became so hard upon them, that but few of the people remained with their chiefs; not above five hundred, or at most a thousand, with each, after the violence of the first charge.

HAFIZ RAHMUT KHAN being indisposed, was in his *palankey*, and seeing the desperate state of affairs, he ordered his people to carry him to DOON-BY KHAN, that he might expire in his presence; while, on the other hand, DOONBY KHAN was giving orders to search for HAFIZ RAHMUT KHAN, for so great was the confusion, that no one knew where another was. The two battalions left to oppose the SHAH's flank divisions, as mentioned above, exerted themselves very much, and repulsed the *Durrans* as often as they attempted to advance. In this action, which lasted three hours, six of IBRAHIM KHAN's battalions were almost entirely ruined, and he himself wounded in several places, with spears, and with a musket-ball. AMAR-JEE GOICKWAR, whose division supported IBRAHIM KHAN, behaved very well, and was himself wounded in several places.

In the centre of the line, the Bhow with Biswas Row, and the household troops, charged the division of the Grand Vizier. The Mahrattas broke through a line of ten thousand horse, seven thousand Persian musketeers, and one thousand camels with Zamburucks upon them, killing and wounding about three thousand of them. Among the killed was ATTAI KHAN, the Grand Vizier's nephew, who had gained so much honour by the defeat of GOSIKO PUNDIT. The division gave ground a little, but the Grand Vizier himself stood firm, with three or four hundred horse, and fifty Zamburuck camels he himself, in complete armour, dismounted to fight on foot.

The *Naib* SHUJA-UL-DOWLAH whose division was next, could not see what was going on, on account of the dust, but finding the sound of

men and horses in that quarter suddenly diminish, he sent me to examine into the cause. I found the Grand Vizier in an agony of rage and despair, reproaching his men for quitting him. "Our country is far off, my friends," said he, "whither do you fly?" But no one regarded his orders or exhortations. Seeing me, he said, "ride to my son NUFIZ-UL-DOWLAH, and tell him, that if he does not support me immediately, I must perish." I returned with this message to the *Nawab*, who said that the enemy being so near, and likely to charge his division, the worst consequences might follow to the whole army if he made any movement at that time, which might enable the enemy to pass through the line.

The *Nawab's* division consisted of only two thousand horse, one thousand musketeers, with twenty pieces of cannon, and some swivels. but they stood in close order, and showed so good a countenance that the enemy made no attempt upon it. Once or twice they advanced pretty near, and seemed as if they would charge us, but they did not.

On the left of the *Nawab's* division was that of NUFIZ-UL-DOWLAH, who had about eight thousand *Rohilla* infantry with him, and near six thousand horse. They advanced slowly under cover of a kind of breast-works of sand, which were thrown up by a great number of *Bildars* who were with them, and who, having finished one, advanced the distance of half a musket-shot in front of that, under cover of their own people, and threw up another; to which the troops then advanced, while a third was thrown up in the same manner. They had got on above a *gof* in this method, and were within a long musket-shot of the enemy, NUFIZ-UL-DOWLAH saying, "that it behoved him to exert himself, as he was the person most deeply interested in the event of that day, the rest be-

ing only as visitors." and, to say the truth, he was a man of surprising activity and ability.

He was opposed by JUNKOOJEE SINDAS and between them there was a mortal enemy. As the *Rebilles* had a great number of rockets with them, they fired volleys of two thousand at a time, which, not only terrified the horses by their dreadful noise, but did so much execution also, that the enemy could not advance to charge them. Besides which, the division of SHAH PUSSUND KHAN, was on the right flank of NUJEES-UL-DOWLAH; and that Durrany chief, being a brave and experienced officer, advanced in such good order, that the *Mabrettas* could make no impression on it.

The action continued in nearly this state from morning till noon, and, though we suffered least in point of killed and wounded, yet, upon the whole, the *Mabrettas* seemed to have the advantage.

About noon the SHAH received advice that the *Rebilles* and the Grand Vizier's divisions had the worst of the engagement; upon which he sent for the *Nefuschees* (a corps of horse with particular arms and dress, who are always employed in carrying and executing the SHAH's immediate commands) and two thousand of them being assembled, he sent five hundred of them to his own camp, to drive out by force all armed people whom they should find there, that they might assist in the action, and the remaining one thousand five hundred, he ordered to meet the fugitives from the battle, and to kill every man who should refuse to return to the charge. This order they executed so effectually, that after killing a few, they compelled seven or eight thousand men to return to the field. Some were also found in the camp, and some the SHAH sent from the reserve which was

with

with him. Of these he sent four thousand to cover the right flank; and about ten thousand were sent to the support of the Grand Vizier, with orders to charge the enemy sword in hand, in close order, and at full gallop. At the same time he gave directions to SHAH PUSSUND KHAN and NUJEIB-UL DOWLAT, that, as often as the Grand Vizier should charge the enemy, those two chiefs should at the same time attack them in flank.

About one o'clock these troops joined the Grand Vizier, who immediately mounted his horse, and charged the body of the *Mahratta* army, where the Bhaw commanded in person SHAH PUSSUND KHAN and NUJEIB-UL-DOWLAT took them in flank at the same time, which produced a terrible effect.

This close and violent attack lasted for near an hour, during which time they fought on both sides with spears, swords, battle axes, and even daggers. Between two and three o'clock, BISWAS ROW was wounded, and dismounted from his horse, which being reported to the Bhaw, he ordered them to take him up and place him upon his elephant. The Bhaw himself continued the action near half an hour longer on horseback, at the head of his men, when all at once, as if by enchantment, the whole *Mahratta* army at once turned their backs and fled at full speed, leaving the field of battle covered with heaps of dead. The instant they gave way, the victors pursued them with the utmost fury; and, as they gave no quarter, the slaughter is scarcely to be conceived, the pursuit continuing for ten or twelve ells in every direction in which they fled.

Of every description of people, men, women, and children, there were

found to be five hundred thousand souls in the *Mahratta* camp, of whom the greatest part were killed or taken prisoners, and of those who escaped from the field of battle and the pursuit, many were destroyed by the *Zemindars* of the country. *ANTAJEE MANKAEEER*, a chief of rank, was cut off by the *Zemindars* of *Fereeshaugur*.

The plunder found in the *Mahratta* camp was prodigiously great: you might see one of our horsemen carrying off eight or ten camels, loaded with valuable effects. horses were driven away in flocks like sheep, and great numbers of elephants were also taken.

Near forty thousand prisoners were taken alive, of which six or seven thousand took shelter in the camp of *SUJJA-UL-DOWLAH*, who posted his own people to protect them from the cruelty of the *Durraniis*: but the unhappy prisoners, who fell in the hands of the latter, were most of them murdered in cold blood, the *Durraniis* saying in jest, that, when they left their own country, their mothers, sisters, and wives desired that, whenever they should defeat the unbelievers, they would kill a few of them on their account, that they also might possess a *merit in the sight of God*. In this manner, thousands were destroyed, so that in the *Durrany* camp (with an exception of the *SHAH* and his principal officers) every tent had heads piled up before the door of it.

As soon as the battle was over, all the chief officers presented their *Nazars* of congratulation to the *SHAH*, and his majesty, having taken a slight view of the field of battle, returned to his tent, as all the other commanders did to theirs, leaving the inferior officers and private soldiers to continue the plunder and pursuit at their own discretion.

Towards morning, some of BERKHORDAR KHAN's *Durrans* having found the body of BISWAS ROW, on his elephant, after taking the elephant and jewels, brought the body to SHUJA-UL-DOWLAH, who gave them two thousand rupees for it, and ordered that it should be taken care of. IBRAHIM KHAN GARDEE, though severely wounded, had been taken alive by SHUJA KOULY KHAN, one of SHUJA-UL-DOWLAH's own people, which being reported to his Excellency, he ordered him to be carefully concealed, and his wounds to be dressed.

The SHAH next day ordered SHUJA-UL-DOWLAH to send the body of BISWAS ROW for him to look at, which he accordingly did. The whole camp great and small were assembled round the SHAH's tent to see it, and every one was in admiration of the beauty of its appearance. It was not disfigured by death, but looked rather like a person who sleeps. He had one wound with a sword on the back of his neck, and a slight one with an arrow over his left eye, but there was no blood discoverable on any part of his remaining clothes. Upon sight of this body, many of the *Durrans* assembled in a tumultuous manner, saying, "this is the body of the king of the unbelievers, we will have it dried and stuffed to carry back to Kabul." Accordingly it was carried to the quarter of BERKHORDAR KHAN, and deposited near the tent of MOOTY LOI, a *Kettry* by cast, who was his *Dewas*.

As soon as SHUJA-UL-DOWLAH heard of this, he waited upon the SHAH, and joined with the Grand Vizier, represented to his majesty "That clemency should be limited to the life of our enemy; and it is always the custom of Hindoojan, that after a victory, the bodies of the chiefs, of whatever race or tribe, are given up, that they may receive their proper obsequies," according

" according to the rules of their particular religion such conduct, they said, does honour to the visitors, but an opposite one disgraces them.
 " Your majesty is only here for a time, but SHUJA-UL-DOWLAH, and the other Hindoozay chiefs, are the fixed residents of this country, and may have future transactions with the *Mahratta*, when their conduct on the present occasion will be remembered; therefore let the body be given up to them, that they may act as is customary here."

This matter remained in agitation for near two days, NUJEEN-UL-DOWLAH, and indeed all the Hindoozay chiefs, joining in the same request I was also sent on this account, accompanied by MING RAJ, the *Vakeel* of NUJEEN-UL-DOWLAH, to the tents of BIRKHORAO KHAN and MOOTY LOL. A second time I went alone, when Mooty Lol asked me if I came on that business only, or would undertake any thing further I said, " for any thing that he chose to communicate " Accordingly he carried me privately into two inner tents, in one I found Raja Baboo PONDIT, the Brow's *Vakeel*, who was wounded, with whom I conversed for some time; after which I went into the other tent, where Row JUNKOOJEE Sindia was lying; he was wounded with a ball, and with a spear in the arm, which he wore in a sling, and was a youth about twenty years of age. Upon seeing me he hung down his head, on observing which, I said to him, " Why do you do so, Sir? whatever could be expected from human valour and exertion, you have done, and the deeds of that day will live for ever in the memory of mankind." Upoo this, lifting up his head, he said, " True, no one can contend with destiny. I wish I had died in the field of battle; but it was my fate to be brought hither. These people now require ransom from me, nor would it be difficult for me to pay what they demand, but it is impossible for me to get it here at this time.

" time. You were a friend of my father's, and there was always friendship between my family and the *Navab*'s, and my father did them considerable services; if his Excellency will pay the money required for my release, it is an obligation that I shall never forget" I assured him that the *Navab* would not be backward, and desired to know how much was required. MOOTY LOI said, seven lacs of rupees was the sum mentioned, but that it might probably be settled for less. I immediately returned to the *Navab*, whom I found sitting with NUJEIB-UL-DOWLAH; I told him all that had passed respecting the business he sent me upon; but as I well knew the enmity which NUJEIB-UL-DOWLAH bore to the family and person of JUNKOOJEE, and thought, that from his good intelligence he might have some intimation that JUNKOOJEE was taken alive, I thought it was best to avoid saying any thing about him to the *Navab* at that time, and went away to another part of the tent but NUJEIB-UL-DOWLAH, who had observed me, said to the *Navab*, "From the countenance of CASI RAJA, I perceive that he has something else to say which my presence prevents." SHUJA-UL-DOWLAH replied, that there were no secrets between them two; and immediately calling me, made me swear by the Ganges, to speak all that I should have done if NUJEIB-UL-DOWLAH had not been there, which being thus compelled to do, I did. NUJEIB-UL-DOWLAH, who was master of the most profound dissimulation, said, that it was highly proper, and becoming great men, to relieve their enemies under such circumstances, he therefore begged that SHUJA-UL-DOWLAH would settle the ransom of JUNKOOJEE, and that he himself would pay half of it This was his profession, and soon after taking leave, he went to the Grand Vizier, and informed him of all the particulars.

As, on one hand, NUJEIB-UL-DOWLAH wished to exterminate the family of
Sindees,

Sader, the Grand Vizier also was an enemy to BEKKHORDAR KHAN, whom he hoped to injure by discovering this secret negotiation they therefore went immediately together to the SHAH, and laid the affair before him His Majesty sent for BEKKHORDAR KHAN, and questioned him about having concealed JUNKOOJEE; but he positively denied any knowledge of it. The Grand Vizier then sent for me to prove the fact; but even after that, BEKKHORDAR KHAN persisted to deny it. Upon which the SHAH ordered his Afghakches to search the tents of that chief. Thus driven to extremity, BEKKHORDAR KHAN immediately dispatched orders to his people to put both the prisoners to death, and bury them privately, before those sent by the SHAH should arrive to look for them which was done accordingly, and thus those unhappy people lost their lives.

IBRAHIM KHAN GARDEE had hitherto remained in SHUJA-UL-DOWLAH's camp, and it was his Excellency's intention to send him privately to LUG-
now; but some of the SHAH's people getting information of this, informed His Majesty of it, who sent for his Excellency, and questioned him on the subject. He at first denied it, but at length the SHAH, by dint of persuasion and flattery, got him to confess it. Immediately (as had been preconcerted) a great number of Durrans surrounded the SHAH's tent, crying out, "IBRAHIM KHAN is our greatest enemy, and has been the destroyer of mul-
" tudes of our tribe; give him up to us, or let us know who is his pro-
" tection, that we may attack him" SHUJA-UL-DOWLAH put his hand upon his sword, and said, "here he is." and things were very near coming to extremity, when the Grand Vizier interfered, and taking SHUJA-UL-DOW-
LAH aside, he entreated him to confine IBRAHIM KHAN to his care for one week, promising to restore him safe at the end of that time. The Nawab expressed some apprehension of intended treachery, but the Grand Vizier swearing

sweating on the *Korsa* that no harm should befall the prisoner, SHUJA-UL-DOWLAH sent for IBRAHIM KHAN, and delivered him into the Grand Vizier's hands,

The SHAH ordered him to be brought into his presence, and insultingly asked him, "how a man of his courage came to be in such a condition?" He answered, "that no man could command his destiny, that his master was killed, and himself wounded and prisoner, but that, if he survived, and " his Majesty would employ him in his service, he was ready to shew the " same zeal for him as he had done for the Bhow" The SHAH gave him back in charge to the Grand Vizier, where he was treated with the greatest cruelty, and, as it is said, they ordered poison to be applied to his wounds, so that he died the seventh day after

The day after the battle, the SHAH, superbly dressed, rode round the field of battle, where he found thirty-two heaps of the slain of different numbers, most of them killed near each other, as they had fought; besides these, the ditch of the Bhow's camp, and the jungles all round the neighbourhood of *Paniput*, were filled with bodies. The SHAH entered the town of *Paniput*, and, after visiting the shrine of BOO ALY KALINDER, he returned to his tents

SHUJA-UL-DOWLAH took some hundreds of *Bishnus* with him to the field of battle, to wash the bodies, and look for those of the chiefs, especially for that of the Bhow; and earned the *Mabraitas* *Vakeels* SINADUR PUNDIT, and GUNNEISH PUNDIT, and other prisoners, who knew the persons of all the chiefs, to assist him in finding them out. Accordingly they found the bodies of JESWUNG ROW POWAR, and the son of PALA JADOO, and many others.

The second day, after the strictest search had been made for the body of the Bhow, advice was brought that a body was lying about fifteen coils from the field of battle, which appeared to be that of a chief. SHUJA-UL-DOWLAH immediately went to the place, and had the body washed. Some pearls of the value of three or four hundred rupees each, being found near the body, confirmed the belief of its being that of a person of rank. These pearls the *Naib* gave to SINADUR PUNDIT the *Mabratia Vakil*, who, as well as the rest of the *Mabratias* who came to find out the bodies, burst into tears, and declared this to be the body of the Bhow, which they discovered by several natural marks, which the Bhow was known to have about him. First, a black spot about the size of a rupee on one of his thighs, secondly, a scar in his back, where he had been wounded with a *Kuttar* by MAZUFER KHAN, and thirdly, in his foot the fortunate lines, called by the astrologers, *Paddum Musch*. The body was that of a young man about thirty-five years old, and strongly made, and, as it was known that the Bhow every day made one thousand two hundred prostrations before the sun, so were there the marks of such a practice on the knees and hands of this corpse.

While we were thus employed, I observed one of the *Durraves*, who stood at a distance and laughed; which I remarked to the *Naib*, and told him, that perhaps that man might know something respecting the body. The *Naib* took him aside, and questioned him, to which he answered, "I saw this person several times during the battle, he was extremely well mounted, and, in the course of the action two of his horses were killed under him, at last he received several wounds, and was dismounted from his third horse. About this time the *Mabratia* army fled on all sides, yet this person seemed still to preserve his presence of mind.

" mind. He was well dressed, and had many jewels on, and he retired " with a short spear in his hand, and with a resolute aspect I and " some others pursued him for the sake of his jewels, and, having surround- " ed him, we asked him if he was some thief, or the Baow himself and told " him not to be afraid, for we would do him no harm, but carry him " wherever he desired. As he made no reply, one of my companions " grew angry, and wounded him with a spear, which he returned, upon " which we killed him, and cut off his head, but not without his wounding " two or three of us. the head another person has got." This last circum- " stance was not true, for the head was afterwards found with this very man.

The *Navab* carried the body, and that of SUNITAJEE NAJAH (which had forty cuts of swords upon it) to the camp, upon two elephants, and informed the SHAH of all the circumstances.

The SHAH, in compliment to SHUJA-UL-DOWLAH, gave orders that these two bodies, together with the body of BISWAS ROW, should be burnt, according to the custom of their castes; and sent twenty of his *Nefuckbees* to attend, and prevent the *Durrasas* from giving any interruption to the ceremony. His Excellency gave the bodies in charge to me, and told me that I was of the same country and tribe, and therefore he desired that I would burn them with the proper ceremonials; and he sent *Rajah* ANURGHIRE with the *Nefuckbees* to attend me. Accordingly I carried them to a spot between the SHAH's camp and the *Navab*'s, and, having washed them with *Ganges* water, and perfumed them with sandal wood, I burnt them.

About two thousand of the fugitives from the BAOW'S camp, who had escaped from slaughter by SHUJA-UL-DOWLAH'S protection, were present

on this occasion, and all were of opinion that the headless body was the Bhow's; but still, the head not having been seen, there was some room for doubt. In the evening, after burning the bodies, we returned to camp. At night SHUJA-U-L-DOWLAH went to the Grand Vizier, and told him what the *Durray* had said respecting the head. The Vizier sent for the *Durray*, who belonged to BSKHORDAR KHAN, and told him not to fear being obliged to give up his plunder, that he should keep it all if he would confess where the head was. Upon this the *Durray* brought it wrapped up in a cloth, and threw it down before the Grand Vizier. *Rajah Baboo Pundit*, the *Mab-rattha Vakil*, being sent for to look at the head, immediately said, "this is the head of the Bhow he was my master, and the care of this is a sacred duty to me, let me beg that this head may be given to me, and that I may be permitted to burn it, according to the ceremonial of our religion." The Grand Vizier smiled at this request, and gave the head to him, at the same time sending some *Nefuckbees* with him for his protection. *Rajah Baboo Pundit* carried the head on the outside of the camp, and burnt it, after which no man doubted that the Bhow was actually killed. And this concludes all that I personally know respecting this battle and the death of the Bhow.

I afterwards learned from other parts of the country, that MULHAZ ROW, AMAJEE GUICKWAN, BETAL SHU DKO, and some other chiefs, fled from the battle and escaped. One of the Bhow's wives escaped on horseback, and got safe to *Dag*, where *Rajah Surja Mul* received her with great respect, gave her money, clothes, and a *palarkis*, and sent her with an escort to *Yanfy*, whence she got safe to the *Deauz*.

SHUMSHERE BEHADER got to *Dag*, wounded; SURJA MUL had his wounds taken the greatest care of, but he died soon after, and his tomb is at *Dag*.

The

The fifth day after the battle, the SHAH returned to *Delly*, which he reached in four marches. He wished to seize on the empire of *Hindostan*; but God disapproved of this design.

After our return to *Delly*, SHUJA-UL-DOWLAH sent all the fugitives from the *Mahratta* camp, who had taken shelter with him, under a guard of his own troops, to the boundary of the *Jaws* dominions, where they were safe.

Eight days after this, by the pleasure of God, all the *Durranius* mutinied in a body, and insisted on the discharge of their arrears for the two years past, and also that they should immediately march back to *Kabul*. This confusion lasted for some days, during which time the *Durranius* quarrelled with SHUJA-UL-DOWLAH's people, and threatened to attack his camp. His Excellency, highly provoked at this, went to the Grand *Vizier*, and asked him, "if that was the treatment he was to experience after all the fine promises that had been made to him?" The *Vizier* assured him, that both the SHAH and himself had the highest respect and attention for his Excellency, but that the *Durranius* were out of all power of control. "Then (said the *Naubab*), I see the value of your promise;" and got up to depart. The *Vizier* embraced him, saying, "we shall meet again," but his Excellency made no reply.

As soon as he returned to his own camp, he consulted with his friends, and all agreed that it was no longer adviseable to remain with the SHAH's army. Accordingly in the afternoon he decamped, and marched fifteen eofs that night, and in this manner by five forced marches, he got to *Mundy Gau* on the *Ganges*. He was apprehensive that the SHAH might be so provoked at the abruptness of his departure, as to order him to be pursued;

but

but no such step was taken; and the *Nawab* crossed the *Ganges*, and returned with safety into his own dominions.

After this, we learned from the news-writers, the *Shah* finding it impossible to pacify his army by any other means, was obliged to give up his views in *Hindostan*, and to return to *Kabul*; having received above forty lacs of rupees from *Nuzir-ul-Dowlah* for the assistance which he had given him.

Though this narrative is written from memory, and long since the events happened, I do not believe that I have omitted any circumstance of importance, and those who reflect upon these transactions, will believe that Providence made use of *AHMED SHAH DURRANI*, to humble the unbecoming pride and presumption of the *Mahrattas*, for in the eyes of God pride is criminal.

N O T E S

P. 93. *writing*) This measure of the *Bhow*'s seems to have been merely a political artifice, to disunite the *Hindostany* chiefs, by exciting in some of them a hope of participating in his conquests; for the preceding conduct of the *Bhow* gives little reason to believe that, if the *Durranks* and *Rohillas* had been out of the question, he would have allowed the existence of any power in *Hindostan* but that of the *Mahrattas*.

P. 99. *children*) This is a compliment very common among eastern nations; and, like most of their other compliments, means nothing at all.

P. 101. *address*) Of this they are extremely tenacious; and it is a thing so very particularly attended to in the east, that those who have occasion to correspond with the *Afghans*, cannot be too well acquainted with every one's address, for any deviation excites either disgust or ridicule.

P. 106. *Pagd*) The word *Pagd* has the same signification among the *Mahrattas* as *Rifla* has among the *Perzans* and *Moguls*, and, being indefinite in the number of troops of which it consists, may be rendered pretty fairly by our word *brigade*. I have known it applied to a ~~brigade~~ of three hundred horse, and, I have also known it used in the same sense, to describe one of four thousand of horse and foot with artillery.

NOTE 3

P 107. *Pindaris*) The *Pindaris* are the freebooters of the *Mahratta* armies, and usually as numerous as those they escort their regulars. They are mounted on small hot-hardy horses, and serve for plunder only. The chief under whom they engage, enters into certain articles of agreement with the chief commanding the *Mahratta* army, respecting the division of plunder, and the *Pindaris* also have particular conditions, on which they serve under their chiefs. Their principal use is in laying waste an enemy's country, or their own when invaded, which they do with great slowness and effect; also in attacking the baggage and camp-followers of an enemy's army. Another thing, which makes them extremely useful to their own army, is, that every *Pindary* has a pair of large bags on his saddle, which, after his day's excursion, he in the evening brings into camp, filled with wheat, barley, rice, or some other useful grain, plundered from the villages, which is sold in the bazaar for something below the market-price, so that ten thousand *Pindaris* are at least as useful to the supply of their own army as an equal number of *Burneis* with carriage-bullocks would be.

P 107. *The troops*) This seems to have been the crisis of the Brow's fortune had he boldly attacked the *SHAH* while he was passing the *Jawas*, he would probably have totally defeated him.

P 108. *his camp*) Colonel Doww says, that the Brow occupied the lines formerly thrown up by *Mahommed SHAH*, and that the *DURRANTH SHAH* posted himself in the more fortunate camp of *NADIR SHAH*. *Kassi RAJH* does not notice this, but says that the Brow dug a trench round his camp. The point however is of little consequence.

P 109. *Yanney*) Colonel Doww says, it was on the 20th, not the 6th of *Jumad al-Sani*. The reader may believe either, without any injury to the fact of the battle itself. Dates are exceedingly inaccurate in all oriental productions.

P 110. *defd*) This may appear extraordinary to those who have never seen a large army of horse galloping about on a dusty plain, in a hot climate, but is a very natural and true description to those who have.

If I am not mistaken, *PLUTARCH* mentions, as one of the most cruel sufferings of *CRASSUS*'s army, when defeated in *Pervia*, that the *Persians* galloped round them continually, and almost suffocated the soldiers with dust.

P 112. *enemy*) *DATTYA JU PATEIL*, the brother of *JUNKOJEE*, had been killed the year before, in the battle of *Badely*, against *NURUL-UL-DOWLAH*.

P 113. *orders*) These orders of *AHMED SHAH* evince much military knowledge perhaps better can scarcely be imagined in that situation of affairs, and the success was complete.

P 113. *embarkment*) The *Mahratta* army fled in consequence of the death of *BISWAS ROW*, their chief. This is always the case with *Afghani* armies.

NOTE S.

P. 124. *first*) This number seems very great, but any person acquainted with the multitudes of followers in an *Jaffer* camp, will not disbelieve it. Even in *Angri*'s camps in *India*, three followers to each fighting man, is considered as a moderate number.

P. 124. *next*) This is looked upon as highly beneficial to the souls of the faithful; and almost a certain passport to paradise.

P. 127. *Ganges*) This is one of the many influences among this people, where absurd superstition is brought in excess of her morality. What the author advert's to is very common, both among *Hudais* and *Mujahidans*: It is rather an adoration than any thing that might reasonably be deemed obligatory (even though its object were innocent) on the person on whom it is involuntarily imposed; and is usually practised to make men betray secrets which they are bound in honour to conceal. He who wishes to discover the secret, says, "I adjure you by the *Ganges*, or the *Know*, or your son's head." Thus the other pretends to consider a sufficient compulsion for him to betray his trust. I say pretends, because where the secret regards their own interest or safety, they are very far from allowing an equal force to the adoration.

P. 129. *thirdly*) The cause of this extraordinary exinity to *Ibrahim Khan*, was his having sought on the side of the infidels against the true believers.

P. 132. *killed*) Notwithstanding all this, however, in the year 1779, a man appeared, who called himself the *Bhow*, and from many circumstances obtained credit for some time.

He came first to *Etoore*, and made himself known to *Lala Balgoring*, a merchant with whom the *Bhow* had been on terms of friendship. *BALGORING* was so far persuaded of his identity, that he treated and entertained him with great respect; but, though he brought many circumstantial proofs that he was the *Bhow*, and his age, person, and several marks about his body strongly supported that belief, still there appeared a difference in temper and manner, which excited doubt. *BALGORING* having expressed his wish to be satisfied respecting this, the person replied, that after the battle and pursuit, from which he escaped alive, though wounded, he fled to the hills of *Kandow*, where he lived five years among a fraternity of *Fakirs*, conforming to all their austerities, which must necessarily have made a great change in his manners. That after this, he had resided some time in *Rohilkund*, and had travelled to many places in the disguise of a *Byrga fakir*. "At length," said he, "I am arrived here, and we must devise the best method for me to declare myself." *BALGORING* told him, that, as there were many *Mahrattas* at *Benares* to whom the *Bhow* was known, he had better first shew himself there. Accordingly he went to *Chatterjee*, in *Bendekund*, from whence he wrote (as the *Bhow*) to *Moorjee Bhut*, *Ramchunder Gotkua*, and *Gunnish Bhut*, at *Benares*, informing them that he was arrived at *Chatterjee*, and desiring them to come to him immediately.

Upon receipt of this letter, *Morjee Bhut*, the son of *Ramchunder Gotkua*, and *Doodhnoo Bhut*, who was an old servant of the *Bhow*, set out for *Chatterjee*, where they immediately waited

upon

NOTES

upon the supposed Bhaw, and had a long conference with him, after which they retired to a house in the town. Next day they waited upon him again, when, in the course of the conversation, the supposed Bhaw told them, that as he had left many lacks of rupees, as a deposit with them, before the battle of Paniput, he desired that they would furnish him with some money, to defray the expence of the rank which he meant to assert. On this they immediately got up, and went away; and from that time they began to circulate a report that this was not the Bhaw, but an impostor. When he heard this, he reproached them with ingratitude, and told them that he would come to Benares, and establish his claims upon them—they however persisted to deny them, and returned to Benares. The supposed Bhaw followed them, and arriving at Benares, went to reside at the house of DOONDOO BHUT, who all along acknowledged him. Here several Mahrattas, and other considerable inhabitants of that town went to see him, and were so far convinced of his identity, that they gave and lent him large sums of money. Several of the Mahrattas also stood with him, in proof of their belief of his story. But four or five of the principal merchants, whom he had asserted to be his debtors, would not visit him, at which he was so much provoked, that he sent word to MOAJZA BHUT, RAMBHUNDAS GORASIA, and GUHRIKA BHUT, either to pay him what they owed him, by fair means, or that he would compel them by force. At the same time he began to raise some troops in the town, and soon got together some hundreds of the kind of soldiery procurable in every town of Hindostan. He also got a palke, and two or three horses for himself, with which cavalcade he used to come into the town, and pose in terror round the houses of his debtors, who were much alarmed lest he should seize upon them and carry them off.

Mr THOMAS GRAHAM, who at this time was resident on the part of the company at Benares, hearing of these proceedings, inquired of several persons of character, whether, in their opinion, this man was the Bhaw or not, who all replied that he certainly was an impostor. While this inquiry was going on, it was discovered that DOONDOO BHUT, a confidential friend of the Bhaw (as has been said before) was carrying on some secret negotiation with RAJA CHAYT SING, who had sent him money at different times. Mr GRAHAM was led to believe, from many circumstances, that one object of this negotiation was to have him destroyed, under cover of some popular infraction, the Raja having at that time conceived a jealousy of him, on account of his knowledge in the affairs of that district, which the Raja wished as much as possible to conceal. As the English were then at war with the Mahrattas, and RAJA CHAYT SING thought to be rather dissatisfied with the government, Mr GRAHAM was very naturally alarmed at this intelligence, and sent a message to the Raja, requesting that he would explain himself. In reply, RAJA CHAYT SING assured him that he was perfectly ignorant of the matter in question, and desired that Mr. GRAHAM would send for the person himself and inquire. Mr GRAHAM accordingly did send for him, but he peremptorily refused to come, with expressions of contempt for the resident's authority.

Mr GRAHAM having advised the Raja of this, and called upon him for assistance, as the person in whose hands the government of the country was, as to its police, the Raja immediately sent the Amer and *Cawal* of Benares with a detachment of Sepoys, to seize upon the supposed Bhaw, and confine him. They accordingly surrounded the house in which he resided, and, after some little resistance, they took him prisoner, and carried him to Mr GRAHAM, who asked him some questions, to which his answers were not satisfactory and rather tending to confirm the suspicions already conceived of RAJA CHAYT SING.

NOTES

The supposed Brow remained a prisoner in the Asunder Cottaherry at *Benares*, till Mr. GRAHAM having consulted the board at *Calcutta*, received their orders to send him to *Chamergar*, and deliver him in charge to the commanding officer there; and they at the same time directed him to inquire particularly into the truth or falsehood of his story. This person was accordingly confined at *Chamergar*, where Mr. GRAHAM went several times, and sent for the prisoner, whom he questioned particularly respecting his whole story, the result of which was, his feeling some disposition to credit his being the Brow, and occasionally assisting him with money. Soon after, Mr. GRAHAM went to *Calcutta*, carrying with him an agent on the part of the supposed Brow, but in a short time after, he himself going to *Madras* as secretary to Sir ERAS COOTE, nothing was determined respecting that affair, and the unfortunate man remained a prisoner till August 1781, when Mr. HASTINGS, the Governor General, came to *Benares*, and the troubles with Raja CHATTA SINGH commenced. During the time of Mr. HASTINGS's residence at *Chamergar*, he sent for the prisoner, and, after hearing his story, ordered him to be released. The man returned to *Benares*, where he died soon after.

Among others, Kassi RAJU PUNOIT, the author of this book, being at *Benares*, when the supposed Brow resided there, went to see him, and said (as BALCOBING had done) that the person exactly resembled the real Brow, and that the marks upon him (he same as mentioned in his narrative of the battle of *Panipat*) exactly corresponded, but that the manner and temper were different.

Thus the affair stands at present a subject for unbounded conjectures, and the *Benares* Brow will generally be classed with LAMBERT SIMMEL, PERKIN WARRELL, the *Russian Dematai*, and many others whom ill success has transferred to posterity as impostors, when better fortune in the precarious appeal to the sword, would perhaps have stamped them the real much injured heirs of their domains, restored by the hand of Heaven, to bless their subjects by the benign exercise of legitimate authority.

"The vanquish'd rebel like a rebel dies"

"The victor rebel plumes him on a throne"

This man had written a history of himself in the *Perfia* language, which he gave to Mr. THOMAS GRAHAM, who would have indulged me with the perusal of it, but having left it behind him when he went to the coast with the late Sir ERAS COOTE, in a place not sufficiently dry, it was unfortunately destroyed by vermin.

P 132 SHUMSHAE) This was the father of ALI BEHADDE, now at *Murra* (in 1790) with TOSOJEE HULKER

P 133 (*He married*) This is the only historical intimation that I remember to have met with of this fact, yet it is extremely probable, and I was told by people of the first authority, when I was at *Delly*, that the connection which AHMED SHAH DURKANT formed with the house of TIMUR when he was in *Hindostan*, was with that view. He himself married a daughter of MOHAMMED SHAH, and gave a young daughter of ALUMGIRZA SAMI (consequently a sister or half-sister of SHAH ALVM) to his son TIMUR SHAH, who has since succeeded him to the throne of *Kabul*, &c. But his constant apprehensions on the side of *Perfia*, and a disposition void of enterprise, have hitherto prevented TIMUR SHAH

SHAH from attempting any thing in Hindostan, and, as he grows older, it is probable that his pacific conduct will still continue.

P 134. *Nawab*) It cannot fail to strike every reader, that though KASSI RAJH PUNDIT^W was a servant, and evidently a great admirer of SHUJA-UL-DOWLAH, omitting no fair occasion of praising him, yet he says nothing of what Dowz and some others tell us of SHUJA-UL-DOWLAH's being highly instrumental to gaining the victory at Paniput, by wheeling round upon the flank of the Mahratta, at a critical part of the battle. On the contrary, by his very clear and minute detail, it appears that SHUJA-UL-DOWLAH's division never moved from their first post, but thought themselves fortunate in not being attacked where they were. As, independent of historical truth and his master's credit, KASSI RAJH would himself have derived some share of reputation from the gallant actions performed by that division, it does not seem likely that he would have passed such a circumstance over in silence, if it had ever happened.

AN EXPLANATION OF THE PLAN

A *Paniput*, with the *Mahratta* Camp
 1 Division of IBRAHIM KHAN
 2 Division of AMAJEE GWICKWAR
 3 Division of SHU BRO PATUL
 4 Division of the BHOW and BISWAS Row
 5 Division of JEWORT Row
 6 Division of SHUMSHEER BEKADER
 7 Division of MULHAN Row
 8 Division of JUKGOOGEE SINDIA

B The <i>Dursey</i> Camp.
C The SHAH's advanced Tent
1 Division of BRAHOSDAR KHAN.
2 Division of AMIR BRO, &c
3 Division of DOONDY KHAN
4 Division of HAFIZ RAHMUT KHAN.
5 Division of AHMED KHAN BUNOUSH
6 Division of the Grand Vizier
7 Division of SHUJA-UL DOWLAH
8 Division of NUJEIB-UL-DOWLAH
9 Division of SHAH POSSUNG KHAN
10 <i>Perfum Musketeers</i> .

REMARK by the PRESIDENT.

THE preceding narrative brings to my mind an anecdote, which I received from BAHMEN of Yezd, whose father BAHRA'M had been a confidential servant of CAR'I'M KHA'N, and heard it at Shiraz from the lips of the KHA'N himself. Both CAR'I'M Zerd and AHMED Abdah were officers of NA'DIR Shâh, and, having displeased him at the same time, for a little neglect of their duty as commissaries, were put under arrest, and confined for some days in the same guard-room, but such are the vicissitudes of life in unsettled countries, that a short time after, NA'DIR was assassinated by one of his own kinsmen, CAR'I'M became, at length, sovereign of all Iran, where he reigned near thirty years universally beloved, and AHMED, having founded a new kingdom at Cabul, obtained the victory at Pampas'h, without which the Mahratas would, perhaps, at this day have been the most powerful nation of India.

TO COLONEL PEARSE

DEAR SIR,

* THE following is an extract from a paper written in 1782, and intended for a periodical mathematical publication, which I then had the care of as it mostly relates to a subject of which no person is a better judge than yourself, if you think it worthy of a place in the *Transactions* of the *Astutick Society*, I request you will transmit it

I am, DEAR SIR,

Your most obedient and

most humble servant,

Fort William,
June 10, 1787.

REUBEN BURROW.

VI.

**A SPECIMEN of a METHOD of REDUCING PRACTICAL TABLES
and CALCULATIONS into more general and compendious Forms.**

THOUGH practices usual in one science may often be transferred with advantage to another, yet the general class of writers are so much more intent upon making books than improvements, that it very seldom happens to be the case: and, therefore, though the following hints can have little claim to ingenuity, they are certainly valuable on account of their use.

It is common in Astronomy, when there are two series of quantities, whose respective terms depend on each other, to find a general expression for an intermediate term, by what is called the method of interpolation: that is applied by NEWTON to *Comets*, and by DE LA CAILLE to *Eclipses*, and I shall here, as a specimen, apply it to some few examples in artillery and fortification.

Let $g+hx$ be an expression by which the quantity a is derived from m , and b from n , then if N is any term in the series m, n , the term derived from it, in the series a, b , will be $(an-bm) \cdot (n-m) + N(b-a) \cdot (n-m)$

In p 174 of MULLER's Artillery, the length of a battery for two pieces of cannon is forty-feet, and for four pieces fifty-eight feet: now if N be the number of cannons, a general expression for the length of the battery may be found, by substituting two for m , and four for n , forty for a , and fifty-eight for b , in the foregoing form, which then becomes $22+\frac{9}{2}N$, and therefore, for twenty pieces of cannon, the length of the battery is 208 feet

By a similar substitution, if fifty men are required to make the battery for two pieces, and seventy for that of four pieces, as in MULLER's Table, then $30 + 10N$, is the expression for the men required for any number N of pieces in general.

Instead, therefore, of MULLER's Table, the following general one may be inserted for the number of men, tools, &c. for making a battery for any number of cannon in one night.

Number of Pieces	Length of the Battery.	Men to make the Battery. Pounds	Tools	Pounds in feet			Poles	Mallets	Men All	Planks. Squares. Poles			Horse
				to 1	8	6				Planks	Squares	Poles	
N	$\frac{N}{2}$	$\frac{N}{4}$	$\frac{N}{8}$	$\frac{N}{16}$	$\frac{N}{32}$	$\frac{N}{64}$	$\frac{N}{128}$	$\frac{N}{256}$	$\frac{N}{512}$	$\frac{N}{1024}$	$\frac{N}{2048}$	$\frac{N}{4096}$	$\frac{N}{8192}$
$\frac{N}{2}$	$\frac{N}{4}$	$\frac{N}{8}$	$\frac{N}{16}$	$\frac{N}{32}$	$\frac{N}{64}$	$\frac{N}{128}$	$\frac{N}{256}$	$\frac{N}{512}$	$\frac{N}{1024}$	$\frac{N}{2048}$	$\frac{N}{4096}$	$\frac{N}{8192}$	$\frac{N}{16384}$
$\frac{N}{4}$	$\frac{N}{8}$	$\frac{N}{16}$	$\frac{N}{32}$	$\frac{N}{64}$	$\frac{N}{128}$	$\frac{N}{256}$	$\frac{N}{512}$	$\frac{N}{1024}$	$\frac{N}{2048}$	$\frac{N}{4096}$	$\frac{N}{8192}$	$\frac{N}{16384}$	$\frac{N}{32768}$
$\frac{N}{8}$	$\frac{N}{16}$	$\frac{N}{32}$	$\frac{N}{64}$	$\frac{N}{128}$	$\frac{N}{256}$	$\frac{N}{512}$	$\frac{N}{1024}$	$\frac{N}{2048}$	$\frac{N}{4096}$	$\frac{N}{8192}$	$\frac{N}{16384}$	$\frac{N}{32768}$	$\frac{N}{65536}$
$\frac{N}{16}$	$\frac{N}{32}$	$\frac{N}{64}$	$\frac{N}{128}$	$\frac{N}{256}$	$\frac{N}{512}$	$\frac{N}{1024}$	$\frac{N}{2048}$	$\frac{N}{4096}$	$\frac{N}{8192}$	$\frac{N}{16384}$	$\frac{N}{32768}$	$\frac{N}{65536}$	$\frac{N}{131072}$

In the same manner, from having a few particular cases in other kinds of rules, general ones may be found, for example, if N be a number whose r root is required, and if x^r be its nearest complete power, then we know already, that

$$x = N - x^r \times N^{\frac{1}{r}} \approx x \text{ for the } 1 \text{ root}$$

$$\frac{1}{2}x^2 + \frac{1}{2}N - N = x^r \times N^{\frac{1}{2}} \approx x \text{ for the square root.}$$

$$\frac{2}{3}x^3 + N - N = x^r \times N^{\frac{1}{3}} \approx x \text{ for the cube root}$$

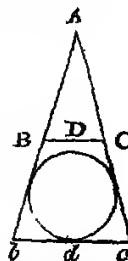
Now the general form of the three last terms is evident; and to find those of the first term, let one and two be put for m and n, and one and three halves for a and b, and by substituting in the foregoing expression, the general coefficient of x^r is found to be $(r+1)$; again if we put 0 and one half for a and b, we find the coefficient of N to be $(r-1)$

If we use the second and third proportions, putting two and three for m and n, and for a and b, three halves and two, in the first case, and one-half and one, in the second we get the same values.

$$\text{Hence in general, } \frac{r+1r}{2} \cdot \frac{r-1}{2} N \cdot N = x^{\frac{3}{2}} \times N = x$$

Another example of the advantage of transferring practices from one subject to another is this. Dr. HALLEY has applied a method similar to that of interpolation to find the time of the tropicks now the sun's meridian altitude may be found in the same way, from altitudes taken near the meridian, and if the observer begins a little before noon to take altitudes and the times, and continues to do so till a little after noon, a number of meridian altitudes may be deduced from these, and the latitude found much more exactly from them, than can be expected from a single meridian altitude, by using the expression for the maximum, or otherwise

Analogous to these, are methods of generalizing properties from particular cases thus, if Ab Ac be tangents to a circle, and if any lines BC bc, be also drawn to touch the circle, then the perimeters of all the triangles A B C, will be constant, and also the difference between the sum of Ab and Ac and the base bc this property is of uncommon use in the construction of problems, relative to plain triangles and trapeziums, and if lines be supposed drawn from the centre, or a point in the circumference of a sphere, to each part of the figure, it will be found, that the projection of the figure upon the sphere will have analogous properties, and that the theorem is also true in spherical triangles By a little mode of consideration, problems similar to those of AROLLUNIUS.



on.

on tangencies may be constructed on the sphere: for instance, having three circles given upon a sphere, a fourth may be found to touch them; for their positions on the sphere being given, their projections will also be given on a plane stereographically, and as a circle may be found in VIETA's method to touch them on that plane, the situation of that circle may be found upon the sphere, and hence properties may be found for constructing the problem independent of the stereographic projection: and if we suppose the centre of projection to be the centre of focus, &c. of a spheroid or other solid, innumerable properties may be found relative to their tangents, curvatures, &c. regard being had to the position of the plane, &c.

To give a specimen of the aforesaid method in fortification, let h (see pp 22, 23, 24, and 25, of DEDIDIER's *Perfect French Engineer*) represent the height of a wall, then, according to VAUBAN's measures, if five feet be the thickness at the top $\frac{1}{5}h+5$, will be the thickness at the bottom, and, according to BELIDOR's method $\frac{1}{6}h+3.5$, will be the thickness at the top, and $\frac{1}{5}h+3.5$, that at the bottom. The length of the counterfort (according to VAUBAN) will be $\frac{1}{5}h+2$, also $\frac{1}{6}h+2$ is the thickness next the wall, and $(\frac{1}{5}h+4)$ the thickness at the other end of the counterfort. If part of the wall is gazoned, let e be the height of that part and h that of the wall, then $\frac{1}{5}(h+e)+5$ is the thickness at the bottom, $\frac{1}{6}(e+5)$, is the thickness at the top, $\frac{1}{5}(h+e)+2$ is the length of the counterfort, $\frac{1}{6}(h+e)+2$, its thickness next the wall, and $\frac{1}{5}(\frac{1}{5}(h+e)+4)$ its thickness farthest from the wall. When there are cavaliers, let c be their height in feet, then $\frac{1}{6}(2c+e+c+50)$ is the thickness of the revêtement at the top, and $\frac{1}{6}(2h+2e+c+50)$ is the thickness at the bottom.

A DEMONSTRATION OF ONE OF THE
HINDOO RULES OF ARITHMETICK.

By Mr. REUBEN BURROW

THE art of invention being in a great measure dependent on the doctrine of combinations; every additional improvement in the last must of consequence be useful in the former, and as the following ancient rule for "finding the sum of all the different permutations of a given numeral quantity, consisting of a given number of places of figures," is not, I believe, extant in any European Author, and is besides very ingenious, I take the liberty to insert it, and also to add the demonstration.

Rule Place an Arithmetical progression over the figures, beginning with unity at the units place, and increasing by unity divide the product of the terms of this progression by the number of places of figures in the given quantity multiply the sum of the figures in the given quantity by the quotient, and set down the product as often as there are places in the given quantity; removing it each repetition one place to the right hand, and the sum of these lines is the sum of all the permutations.

Example. Required the sum of the different permutations of 893.

$\frac{1 \times 2 \times 3}{3} = 2$	$(8+9+3) \times = 40$	893
3 2 1	40	839
8 9 3	40	983
	40	988
	—	889
	4440	398
	—	—
		4440
		Demonstration

DEMONSTRATION.

First, It is evident that if all the permutations of any number of letters expressing figures be put down, and those in the first place to the right hand be multiplied by unity, those in the second place by ten, those in the third place by 100, and so on, then the sum of all these, will be the sum of the permutations required.

Secondly, Supposing the different permutations to be put down one under another, it will really appear, from the manner in which permutations are generated, that all the letters occur an equal number of times in each perpendicular column, and also that the number of times of occurrence in the permutations of n letters, is equal to the permutations of $n-1$ letters, but the permutations of $n-1$ letters is equal to $1 \cdot 2 \cdot 3 \cdot (n-1)$ or $1 \times 2 \times 3$ carried to $n-1$ terms, and consequently if there be n letters in the given number, each letter in the columns aforesaid will occur $1 \cdot 2 \cdot 3 \cdot (n-1)$ times.

Thirdly, Let $1 \cdot 2 \cdot 3 \cdot (n-1) = m$ then,

$m(a+b+c+\dots+n)$ $1 =$ sum of numbers in the units place or first column

$m(a+b+c+\dots+n) 10 =$ sum of numbers in the tens or second column.

$m(a+b+c+\dots+n) 100 =$ ditto third column

$m(a+b+c+\dots+n) 100\dots$ to $(n-1)$ Cyphers = ditto in the n column, and the sum of these is evidently equal to

$m(a+b+c+\dots+n) \cdot (1+10+100+\dots$ to n terms), and putting for $(1+10+100+\dots+n)$ its value $111 \cdot n$, the expression becomes

$(1 \cdot 2 \cdot 3 \cdot (n-1)) \times (a+b+c+\dots+n) \times (111 \cdot n)$, but $1 \cdot 2 \cdot 3 \cdot (n-1)$ is equal to $\frac{1 \cdot 2 \cdot 3 \cdot \dots \cdot n}{n}$ and therefore the expression for the sum of all the permutations is $\frac{1 \cdot 2 \cdot 3 \cdot \dots \cdot n}{n} \times (a+b+c+\dots+n) \times (111 \cdot n)$, which is the Hindoo rule when the figures of the given number are all unlike.

Lastly,

Lastly, It is evident that $1 \cdot 2 \cdot 3 \cdots n$ is the number of permutations of n different things; but if several sets of figures are alike, as r figures of one kind, s figures of another, for instance, then let $(1 \cdot 2 \cdot 3 \cdots n) : (1 \cdot 2 \cdots r) \times (1 \cdot 2 \cdots s)$, &c. the number of permutations in that case be called N , then the sum of the permutations is $N \cdot n \times (a+b+c+\dots+n) \times (111\dots n)$ in general.

Example. Required the sum of the permutations of 11835?

$$\frac{1 \cdot 2 \cdot 3 \cdot 4}{1 \cdot 2 \cdot 3} = 30, \frac{5}{5} = 6; 6 \times 18 = 78;$$

$$\begin{array}{r}
 78 \\
 78 \\
 78 \\
 78 \\
 \hline
 78
 \end{array}$$

866658 the Sum required.

VII.

ON THE

NICOBAR ISLES AND THE FRUIT OF THE MELLORI.

By NICOLAS FONTANA, Esq.

THE south-west monsoon having strongly set in on the Malabar coast, it was deemed unsafe to remain there any longer; we therefore took our departure from *Mangalore* on the 20th of May, 1778, directing our course towards the gulf of *Bengal*, and in less than ten days, we came in sight of the *Carnicobar* islands, the appearance of which, at seven or eight leagues distance, is much like a chain of mountains covered with woods. we anchored to the N. E. of one of them, in five fathoms with a good sandy bottom; supplied ourselves with water and wood, and proceeded in quest of the other *Nicobars* or *Nancowry*, as they are called, situated between eight and nine degs. N. lat. to the northernmost point of the island of *Sumatra*. They were deserted on the 4th of June, to the S. W. $\frac{1}{2}$ W. at the distance of ten leagues the position of three of those islands forms one of the safest harbours in *India*, where ships of all sizes may ride with the greatest security, sheltered from all winds, about half a mile from shore, with the additional advantage of two entrances, that may serve for getting in and out, both with a N. E. and S. W. monsoon, having a clear deep channel on each side.

In one of the bays formed within those islands, we moored in twelve fathoms, and there remained until the S. W. monsoon was quite over, which was in the beginning of September. The largest of those islands is called *Nancowry* or *Nancowry*, about five or six leagues in circumference, and better inhabited than any of the other two. The second is called *Soury* or *Ghouri*,

Cbetury, and the other *Truit*, all closely situated about ten leagues to the N. E. of them is another called *Catchbey**.

Almost the whole of those islands is uncultivated, though there are a number of large valleys that might be rendered very fruitful, with little trouble, the soil being naturally fertile, where the cocoa-nut, and all other tropical fruits, come spontaneously to the highest perfection, together with yams and sweet potatoes, to obtain which it is only necessary to scratch the earth superficially, and the seeds so planted come forth in a few days†.

The surrounding sea abounds with exquisite fish, shell-fish, as cockles and turtles, and a most splendid display of beautiful shells of the rarest sort are to be met with on the shore. The birds nests‡, so much esteemed in China, are also to be found among the rocks ambergris is likewise to be met with, but the inhabitants have learned a mode of adulterating it, and it is therefore seldom to be found in a genuine state if adulterated with any heterogeneous matter, such as wax, or resin, the mode of discovery is simply by placing a small bit of it upon the point of a knife when hot, and if it evaporates without leaving any calx or *Caput Mortuum*, and diffuses a strong fragrant smell, it is certainly genuine.

* In the year 1756, the Dutch E. I. Company erected on one of these islands a house to serve as a factory, but on their failure, in the year 1758, it was evacuated. On the re-establishment of the Company in 1764, another house was built on Sevy Island, which was in 1773, in like manner, ordered to be evacuated as useless to the Company's interests three or four European missionaries, with a view of making proselytes, remained behind, and have continued there ever since, but without effecting even the conversion of a single person, they collect, however, coconut oil, shells, and other natural curiosities, which they send annually to their brethren at Tranquebar.

An exact plan of those islands may be seen in the *Neptune Oriental*.

† *Venice*, being the flattest of these Islands, is divided amongst the inhabitants of the other two, where they have their plantations of Cocoa nut and Areca trees; these last being very abundant all over the islands.

‡ *Nidus hor, rupibus oceanis orientalis efficit, parent hirundines marini, domitici multi majoris, ex holothurie maris insularibus materiam decerpunt* Kosmogr. Amer.—p. 333.

The inhabitants of the *Nicobar* islands are of a copper colour, with small eyes obliquely cut, what in ours is white being in theirs yellowish, with small flat noses, large mouths, thick lips, and black teeth, well proportioned in their bodies, rather short than tall, and with large ears, in the lobes of which are holes, into which a man's thumb might be introduced with ease. they have black strong hair, cut round; the men have little or no beard, the hinder part of their head is much flatter and compressed than ours, they never cut their nails, but they shave their eye-brows*. A long narrow cloth, made of the bark of a tree, round their waist and between their thighs, with one extremity hanging down behind†, is all their dress. The women and men are of the same copper colour, and very small in stature, a bit of cloth made with the threads of the bark of the cocoanut tree fastened to the middle and reaching half way down the thigh, forms all the covering of the women. Both sexes are, however, very fond of dress, and when the men go into the presence of strangers, they put on bats and old clothes, that had been given them by *Europeans*, but among themselves they are almost naked.

They live in huts, made of cocoanut leaves of an oval form, supported on bamboos, about five or six feet high from the ground, the entrance into the huts is by a ladder, the floor is made partly of planks, and partly of split bamboos. Opposite to the door, in the furthermost part of the hut,

* It is a custom among them to compress with their hands the occiput of the new born child, in order to render it flat, as, according to their ideas, this kind of shape constitutes a mark of beauty, and is universally esteemed such by them by this method, also, they say that the hair remains close to the head, as nature intended it, and the upper fore teeth very prominent out of the mouth.

† A traveller called KAOFING, a Seward, who went to the *East India* on board a Dutch ship in the year 1647, which anchored off the *Nicobar* Islands, relates that they discovered men with tails, like those of cats, and which they moved in the same manner. They having sent a boat on shore with five men, who did not return at night, as expected, the day following a larger boat was sent, well manned, in quest of their companions, who, it was supposed, had been devoured by the savages, their bones having been found strewed on the shore, the boat taken to pieces, and the men of it carried away.

hut, they light their fire and cook their viands; six or eight people generally occupy one hut, and a number of skulls of wild boars forms the most valuable article of furniture.'

The occupation of the men consists in building and repairing their huts, which affords them an annual employment for six months at least, and in fishing and trading to the neighbouring islands. The women are employed in preparing the viands and cultivating the ground, they also paddle in the canoes, when the men go out. They unite in matrimony through choice; and, if the man is not satisfied with the conduct of the woman, either from her inattention to domestic concerns, or sterility, or even from any dislike on his part, he is at liberty to discharge her, and each unites with a different person, as if no such connection had taken place. Adultery is accounted highly ignominious and disgraceful; particularly with persons not of the same cast: should it be proved, the woman would not only be dismissed with infamy, but, on some occasions, even put to death; although by the intervention of a small token given publicly, and consisting of nothing more than a leaf of tobacco, the reciprocal *lending of their wives of the same cast* is exceedingly common.

A woman who bears three children, is reckoned very fruitful; few bear more than four, the cause may be attributed to the men, from a debility occasioned by the early intrusion of the testicles into the abdomen, the hard compression of them and the penis, by the bandage round those parts, from premature venery, and debilitation brought on by the immoderate use of spirits, and from the very inactive and sedentary life those people lead,

The account of this voyage was reprinted at Stockholm by SILVIUS in the year 1743—LINNAEUS seems to have been too credulous, in believing this man's story, for in all my examinations, I could discover no sort of projection whatever on the *Coccyx* of either sex. What has given rise to this supposed tail, may have been the shape of cloth hanging down from their posterior, which when viewed at a distance, might probably have been mistaken for a tail.

It will not be difficult to account for that want of longevity, which seems to prevail much in those islands, more especially amongst the men, where none were to be seen older than forty or forty-eight years. The women, on the contrary, seem to live much longer.

They are themselves so sensible of the scanty population of their islands, that they study to increase it by inviting, and even seducing, some *Malabars* or *Bengalese* to remain amongst them, when brought thither by the country ships, and of whom there are in almost all villages some to be found, who may be easily discerned from the natives by their figure, features, colour, and language. The natives encourage their stay by grants of land with plantations of cocoa trees and arecas, and, after a certain number of years, they are permitted to make choice of a female companion.

Their indolence is not to be equalled by any other people of the east. They go out a fishing in their canoes at night, and with harpoons, which they dart very dexterously at the fish, after having allured them into shallow water with burning straw, a sufficient number is soon caught to serve the family for a meal. They immediately return home; and, if, by chance, they catch a very large fish, they will readily dispose of one half, and keep the remainder for their own use.

They entertain the highest opinion of such as are able to read and write: they believe, that all *Europeans*, by this qualification only, are able to perform acts more than human, that the power of divination, controlling the winds and storms, and directing the appearance of the planets, is entirely at our command.

This people, like other savage nations, dread the evil genius; some among them give themselves the air of divination, and presume to have secret confabulations with him. Superstition must ever be in its full dominion, where ignorance is so gross.

Some of the natives, having begun to fabricate earthen pots, soon after died, and the cause being attributed to this employment, it has never been resumed, since they prefer going fifteen or twenty leagues to provide them, rather than expose themselves to an undertaking attended, in their opinion, with such dangerous consequences.

Whenever they visit one another, no sort of compliment or salutation takes place between them, but when the visitors take leave, they are profuse in good wishes, that last for some minutes, with different intlections of voice, to which the other constantly answers, by repeating the words *Calla calla condì condì quage*, which may be rendered in English thus: "Very well, very well, go, go and return soon."

Behind, or close by their huts, the dead are buried: all the relations and acquaintance cry for some hours, before the corpse is put into the grave, where it is interred with all possible solemnity, and in the best dress they can muster, and with abundance of food. After the body is covered with earth, a post is raised and fixed in the ground over the head of the deceased, about four feet high, to the top of which they suspend strips of cloth with meal and areca nuts, and strew cocoa nuts all around. This supply of food for the deceased is even after continued, a cocoa tree is also cut down for every person that dies. As soon as a man is dead, his name is never mentioned, even if repeatedly asked, every one of the mourning

mourning visitors brings a large pot of toddy. The women sit round the corpse howling and crying, and by turns they go and put their hands on the breast and belly of the deceased, who is covered with striped cloth. The men are seated at a little distance, drinking, and inviting all the visitors, to do the same, endeavouring thus to dispel their grief, by a complete general intoxication, which never lasts less than a couple of days after the interment.

The different changes of the moon are productive of great festivity and mirth among the *Nicobarians*, when the doors of their huts are decorated with branches of palms and other trees. The inside is also adorned with festoons made of slips of plantain leaves. Their bodies are, in like manner, decorated with the same ornaments, and the day is spent in singing, and dancing, and eating, and drinking toddy, till they are quite stupefied.

The idea of years, and months, and days, is unknown to them, as they reckon by moons only, of which they number fourteen, seven to each monsoon. At the fair season, or the beginning of the N. E. monsoon, they sail in large canoes to the *Car Nicobars*, called by them *Champalooth*. The object of this voyage is trade, and for cloth, silver coin, iron, tobacco, and some other articles, which they obtain from *Europeans*, together with fowls, hogs, cocoa and areca nuts, the produce of their own island, they receive in exchange, canoes, spears, ambergris, birds' nests, tortoise-shell, and so forth.

Two or twelve huts form a village. The number of inhabitants on any one of these islands does not exceed seven or eight hundred. Every village has its *Head Man*, or *Captain*, as they term him, who is generally the oldest. Few

diseases are known amongst them; and the venereal not at all - the small pox visits them occasionally, but not of the confluent kind: what is more prevalent amongst them, is the edematous swelling of one or both of the legs, known in the west of India under the name of the *Cachex Laz*, from the place where this disorder generally prevails. This endemic disease may be imputed to the following causes; ill chosen and badly prepared diet; the bad choice of habitations, and an extremely indolent inactive life. Fevers and cholicks are also frequent among them when a person falls sick, he is immediately removed to the house of one of their priests, or conjurers, who orders the patient to be laid in a supine posture for some time, then friction with some oily substance is applied to the upper part of the body, and often repeated; which remedy they indiscriminately use for all complaints, never administering medicines internally.

The only quadrupeds on these islands are hogs and dogs - of the former, however, only the fows are kept, and they are fed principally with the milk of the cocoa nut and its kernel, which renders the meat of a firmness and delicious taste, even superior, both in colour and flavour, to the best English veal. It may be worthy remark, that, although the neighbouring Cor Nicobar woods abound with monkeys of different species, none are to be seen in these islands, notwithstanding their having been repeatedly brought over: they neither propagate, nor do they live for any time.

Among the feathered tribe wild pigeons are pretty abundant from June to September, on account of a berry which is then ripe, and on which they feed with great eagerness: at the same time pheasants and turtle doves are frequently found, the constant inhabitants of the woods are a species of

the

the green parrot, or parroquet, with a black bill and collar; no other birds are to be found in them.

The climate is pure, and might, with little trouble, be rendered very salubrious: constant sea breezes fan their shores, thus preserving them from oppressive heat. vegetation continues without intermission, the woods are very thick, and the trees bound together by a kind of twig or creeping shrub, that renders them almost impervious.

The *Nester* dance is as dull and inanimate as can be conceived, as well for the slowness and heaviness of its motions, as for the plaintive monotonous tune that accompanies it with no instrument but their mournful low voices, which are in perfect unison with the motion of their bodies. Men and women form a circle, by putting their hand on each others shoulders, they move slowly, backwards and forwards, inclining sometimes to the right, and sometimes to the left.

The whole of their musick consists of the few following notes.



The basis of the language spoken by these islanders, is chiefly *Malay*, with some words borrowed from *Europeans*, and other strangers, as will appear by the following specimen.

<i>Che</i>	Father	<i>Ochia</i>	Uncle
<i>Ciam</i>	Grandfather	<i>Encogree</i>	Man
<i>Cba Enchana</i>	Mother	<i>Cavan</i>	Son

En. ana

<i>Encána</i>	Woman	<i>Hen</i>	Sun
<i>Cance</i>	Wife	<i>Chac</i>	Moon
<i>Cbernoun</i>	Child	<i>Háyi</i>	Wind
<i>Cho</i>	Head	<i>Onjo</i>	Water
<i>Lal</i>	Forehead	<i>Gnam</i>	Calm
<i>Moba</i>	Nose	<i>Tensagz</i>	Day light
<i>Holmes</i>	Eyes	<i>Scaifn</i>	Evening
<i>Manouge</i>	Lips	<i>Hataboim</i>	Night
<i>Calera</i>	Tongue	<i>Kamben</i>	Noon
<i>Incaougn</i>	Chin	<i>Menzevn</i>	Yesterday
<i>Nann</i>	Ears	<i>Holañes</i>	To-morrow
<i>Encheyon</i>	Hairs	<i>Charov</i>	Great
<i>Halakakala</i>	Neck	<i>Mombëfche</i>	Small
<i>Tbd</i>	Breast	<i>Kean</i>	Strong
<i>Vban</i>	Belly	<i>At loan</i>	Weak
<i>Fouin</i>	Navel	<i>Jo</i>	Yes
<i>Cboat</i>	Arm	<i>At cbou</i>	No
<i>Eckast</i>	Shoulders	<i>Lapoa</i>	Is good
<i>Ocb</i>	Back	<i>Pif</i>	Is enough
<i>Kmitay</i>	Hand and fingers	<i>Tbrou</i>	Me or I
<i>Poto</i>	Thigh	<i>Mbebe</i>	You
<i>Colcaron</i>	Knee	<i>Kelakakala younde</i>	Farewell
<i>Hanban</i>	Leg	<i>Embloum</i>	Gold
<i>Cifcoa</i>	Nail	<i>Henoë</i>	Fire
<i>Hegnougha</i>	Beard	<i>Dbeab</i>	Water
<i>Tobon</i>	Sick	<i>Lboe</i>	Cloth
<i>Lba-ba</i>	Dead	<i>Lanou</i>	A strip they wear
<i>Hiv</i>	Devil	<i>Gnu</i>	House

<i>Tanop</i>	Pipe	<i>Hanno</i>	To eat
<i>Carrevoj</i>	Lemon	<i>Pecum</i>	To drink
<i>Heas</i>	Old Cocoanut	<i>Eisaje</i>	To sleep
<i>Gimno</i>	Green Cocoanut	<i>He-caou</i>	To buy
<i>Nat</i>	Cane	<i>Hen uboj</i>	To sell
<i>Pantau</i>	Rattan	<i>Leom</i>	To lay down
<i>Aptejo</i>	Chest	<i>Hancabatena</i>	Come hither
<i>Cerum</i>	Needle	<i>Ciou</i>	Be gone
<i>Hendel</i>	Musket	<i>Reibey</i>	To laugh
<i>Henatboa</i>	Knife	<i>Houm</i>	To weep
<i>Danon</i>	Medicine	<i>Hexan</i>	To dance
<i>Hya</i>	Betel Nut	<i>Hame</i>	To rain
<i>Acba</i>	Betel Leaf	<i>Pbeamboj</i>	To smoke
<i>Cion</i>	Lime	<i>Hanscrounge</i>	To walk
<i>Chapeo</i>	Hat	<i>Duonde</i>	To paddle or row
<i>Lenzo</i>	Handkerchief	<i>Poufnik</i>	To set down
These two last words are borrowed from the Portuguese.		<i>Hababen</i>	To vomit
<i>Hanchan Chapeo</i> Put on your hat		<i>Acincenga</i>	To stand
<i>Not</i>	A hog	<i>Hicbackers</i>	To speak
<i>Ham</i>	A dog	<i>Asbe kit</i>	To write
<i>Cochon</i>	A cat	<i>Ajoubjy</i>	To hight
<i>Taffoach</i>	Hen	<i>Lava</i>	Lead
<i>Obua</i>	Egg	<i>Carán</i>	Iron
<i>Inlegne</i>	Birds nest	<i>Chaslo</i>	Shirt & coat
<i>Cattoch</i>	Parrot	<i>Hanba</i>	Breeches
<i>Cba</i>	Fish	<i>Hanba lola</i>	Stockings
<i>Cap</i>	Tortoiseshell	<i>Dbanapola</i>	Shoes
		<i>Halbas</i>	Bracelet

Hengoyen

<i>Hempōjōn</i>	Chair	<i>Cbunla</i>	Red
<i>Cherachā</i>	Table	<i>Unat</i>	White
<i>Para</i>	Dollar, or Silver	<i>Combalamagn</i>	Striped cloth
<i>Thamula</i>	Black		

NUMERALS.

<i>Heda</i>	One	<i>Eancata</i>	Nine
<i>Had</i>	Two	<i>Sicom</i>	Ten
<i>Lee</i>	Three	<i>Sicom beam</i>	Eleven
<i>Toan</i>	Four	<i>Sicom bia</i>	Twelve
<i>Tance</i>	Five	<i>Hemom ibume</i>	Twenty
<i>Tafoul</i>	Six	<i>Racata</i>	Thirty
<i>Ifat</i>	Seven	<i>Toanmoen ibume</i>	Forty
<i>Enfōan</i>	Eight	<i>Sicom fion</i>	Hundred

It seems that they have no expression for the numbers beyond forty, except by multiplication.

Trees of great height and size are to be seen in their woods of a compact texture, well calculated for naval constructions* but the productions of which they are more particularly careful, are the cocoa and *areca* trees, the last being chiefly for their own consumption, as they chew it all day long with tobacco, betel-leaf, and shell lime the former is not only useful for their own and their hogs' nourishment, but also an object of trade Most of the country ships, that are bound to *Pegu* from either of the coasts

* One of these trees our people cut down, that measured nine fathoms in circumference, or fifty-four feet.

of India, touch at the *Nicobar Islands*, in order to procure a cargo of co-coa-nuts, which they purchase at the rate of four for a tobacco-leaf, and one hundred for a yard of blue cloth, and a bottle of cocoa-nut oil for four leaves of tobacco. The tropical fruits grow in those islands exquisitely flavoured, the pine-apple in particular. wild cinnamon and saffafraas grow there also, the coffee-tree in two years yields fruit, yams are to be found for three or four months in the year only, and are eaten by the natives instead of the *Larum*, a nutritive fruit, in the description of which, and the tree that produces it, we shall here endeavour to be very particular.

The tree, that bears this nutritive fruit, is a species of *Palm*, called by them *Larum*, by the Portuguese *Mellori*, and is very abundant in those islands, as well as in *Carmicober* it grows promiscuously in the woods, among other trees, but it delights more particularly in a damp soil. The trunk is often straight, thirty or thirty five feet high, and ten or twelve inches (the oldest even two feet) in circumference the bark is smooth, ash-coloured, with equidistant interseptions, of a compact hard texture in its interior part, but soft and quite hollow in the centre from the top of the trunk; the leaves grow disposed like a calyx about three feet long and four inches broad, ensiform and aculeate, of a dark green hue, and of a tenacious hard substance the roots are out of the ground, and inserted at eight or ten feet on the trunk, according to its age, being not quite two feet in the earth the fruit, which has the shape of a pine, and the size of a large *Jac*, comes out of the bottom of the leaves the age of a man is seldom sufficient to see the tree bearing fruit its weight forces it out of the leaves, and, when it is nearly ripe, which is known by the natives on the change of its colour from green to yellowish, it is gathered, and weighs from thirty to forty pounds. The drupes are loosened by thrusting a piece of iron

between their interstices the exterior surface is cut off, and thus put into earthen pots covered with leaves, then boiled on a slow fire for several hours together. The fruit is sufficiently boiled, when the medullary part of it becomes soft and friable, it is then taken from the fire and exposed to the cold air. When cold, the drupes are separated from the stalk, and the medullary part pressed out by means of a shell forced into them. Within the woody part of the drupes, there are two seeds, in shape and taste much like almonds. The soft part is then collected into a spherical mass, and, in order to extract all the stringy fragments remaining in it by the compression of the shell, a thread is passed and repassed, until the whole is extracted, and it comes out perfectly clean. It is then of a pale yellow colour, much resembling polenta, or the dressed meal of the *Zea Mays*, and in taste much like it. When not newly prepared, it has an acidity, to which it tends very strongly, if long exposed to the atmosphere, but it may be preserved a long time, if well covered.

It is certain, that the *Nicobar* bread-fruit tree differs very essentially from the palm described by Mr. MASSON, and found in the interior parts of Africa, which bears a sort of bread-fruit. On my showing to Mr. MASSON, in March, 1790, the drawing of the tree here described, he was pleasingly surprised at the novelty, and declared he had never before seen it. It differs also from the bread-tree found in *Oriabur*, and described by Captain COOK in his Voyage round the World, as will appear very evident on a reference to the notes of that work. Some shrubs, whose leaves resemble much those of the *Nicobar* bread-fruit tree, are to be seen on the Coromandel Coast, and in the Isle of Frante, where they thrive in some degree, but never attain the height of those at *Nicobar*. Imperfect small fruits are seen once a year sprouting out, and the inhabitants derive an advantage

advantage from the leaves of the tree, which they convert into mats and bags to hold coffee.

NOTE by the PRESIDENT.

As far as we can determine the class and order of a plant from a mere delineation of its fruit, we may safely pronounce, that the *Loram* of Nicobar is the *Catte* of the *Arabs*, the *Citaca* of the *Indians*, and the *Pandanus* of our botanists, which is described very awkwardly (as KOENIG first observed to me) in the Supplement to LINNEAUS: he had himself described with that elegant conciseness, which constitutes the beauty of the *Linnean* method, not only the wonderful fructification of the fragrant *Citaca*, but most of the flowers, which are celebrated in *Songs*, by poets for their colour or scent, and by physicians for their medical uses, and, as he bequeathed his manuscripts to Sir JOSEPH BANKS, we may be sure, that the publick spirit of that illustrious naturalist will not suffer the labours of his learned friend to be sunk in oblivion. Whether the *PANDANUS Loram* be a new species, or only a variety, we cannot yet positively decide, but four of the plants have been brought from Nicobar, and seem to flourish in the Company's Botanical Garden, where they will probably blossom, and the greatest encouragement will, I trust, be given to the cultivation of so precious a vegetable. A fruit weighing twenty- or thirty pounds, and containing a farinaceous substance, both palatable and nutritive in a high degree, would, perhaps, if it were common in these provinces, for ever secure the natives of them from the horrors of famine, and the *Pandanus* of Bengal might be brought, I conceive, to equal perfection with that of Nicobar, if due care were taken to plant the male and female trees in the same place, instead of leaving the female, as at present, to bear an imperfect and unproductive fruit, and the distant male to spread itself only by the help of its radicating branches.

NOTE on PAGE 150.

Though little can be added to M. Poivre's description of the *Selargus*, or *Hirund*, *with aldermow*, yet, as Captain FORREST was a perfect master of the Malay tongue, and described only what he had seen, it will not be amiss to subjoin his account of that singular bird. " The bird " with an edible nest is called, says he, *Jamalidai* by the natives of the Maldives, and *Leyang-*
leyang by the Malays; it is black as jet, and very much like a martes, but considerably smaller.
 Its nests, which the Malays call *Surang*, are found in caves, and generally in those, to which the
 sea has access, and, as they are built in rows on perpendicular rocks, from which the young
 birds frequently fall, those caves are frequented by fish, and often by snakes, who are hunting for
 prey: they are made of a slimy gelatinous substance found on the shore, of the sea-weed called
agal agal, and of a soft greenish gray matter often seen on rocks in the shade when the water
 comes from above. Before a man enters such a cave, he should frighten out the birds, or keep
 his face covered. The *Jamalidai* lays her eggs four times a year, but only two at a time: if
 her nest be not torn from the rock, she will use it once more, but it then becomes dirty and black;
 a nest, used but once before it is gathered, must be dried in the shade, since it easily absorbs
 moisture, and, if exposed to the sun, becomes red. Such edible nests are sometimes found in
 caves, which the sea never enters, but they are always of a dark hue, instead of being, like that
 now produced, very nearly pellucid: they may be met with in rocky islands over the whole Caff-
 era Archipelago, (by far the largest in the world) but never, I believe, on the coast of China,
 whether multitudes of them are carried from Batavia. The white and transparent nests are highly
 esteemed, and sold at Batavia for seven, eight, nine, or ten dollars a catty of 3½ lb. but the
 crafty Chinese at that port, who pack up the nests, one in another to the length of a foot or eight-
 teen inches, that they may not easily be broken, seldom fail, by a variety of artifices, to impose
 on their employers."

VIII.

On the MYSTICAL POETRY of the PERSIANS and HINDUS.

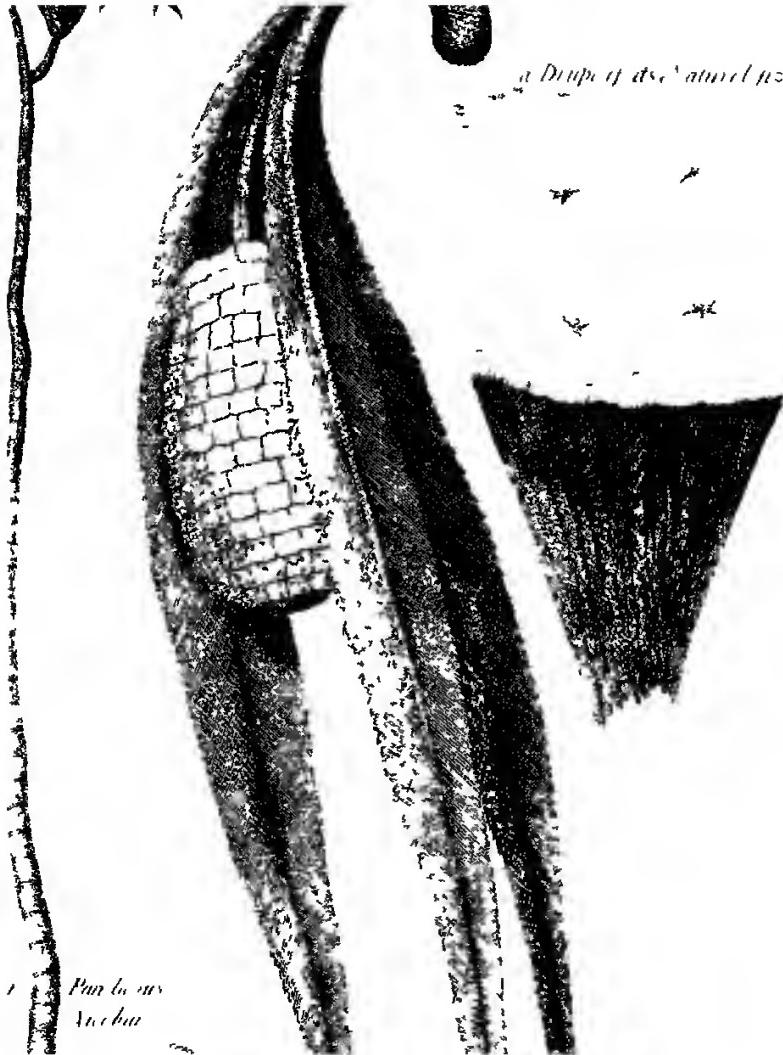
BY THE PRESIDENT

A FIGURATIVE mode of expressing the fervour of devotion, or the ardent love of created spirits toward their Beneficent Creator, has prevailed from time immemorial in *Asia*, particularly among the *Persean* theists, both ancient *Huzangs* and modern *Sige*, who seem to have borrowed it from the *Indian* philosophers of the *Vidânta* school, and their doctrines are also believed to be the source of that sublime, but poetical, theology, which glows and sparkles in the writings of the old *Academicks* "PLATO travelled into *Italy* and *Egypt*, says CLAUDE FLUAVX, to learn the "theology of the Pagans at its fountain head" its true fountain, however, was neither in *Italy* nor in *Egypt*, (though considerable streams of it had been conducted thither by PYTHAGORAS and by the family of MISRA) but in *Perse* or *India*, which the founder of the *Italick* sect had visited with a similar design. What the *Grecian* travellers learned among the sages of the east, may perhaps be fully explained, at a season of leisure, in another dissertation, but we confine this essay to a singular species of poetry, which consists almost wholly of a mystical religious allegory, though it seems, on a transient view, to contain only the sentiments of a wild and voluptuous liberumism now, admitting the danger of a poetical style, in which the limits between vice and enthusiasm are so minute as to be hardly distinguishable, we must beware of censuring it severely, and must allow it to be natural, though a warm imagination may carry it to a culpable excess; for an ardently grateful piety is congenial to the undraped nature of man, whose mind, sinking under the magnitude of the subject, and struggling to express

express its emotions, has recourse to metaphors and allegories, which it sometimes extends beyond the bounds of cool reason, and often to the brink of absurdity BARROW, who would have been the sublimest mathematician, if his religious turn of mind had not made him the deepest theologian of his age, describes Love as "an affection or inclination of the soul toward an object, proceeding from an apprehension and esteem of some excellence or convenience in it, as its *beauty*, worth, or utility, and producing, if it be absent, a proportionable desire, and consequently an endeavour to obtain such a property in it, such possession of it, such an approximation to it, or union with it, as the thing is capable of; with a regret and displeasure in failing to obtain it, or in the want and loss of it; begetting likewise a complacence, satisfaction, and delight in its presence, possession, or enjoyment, which is moreover attended with a good will toward it, suitable to its nature; that is with a desire, that it should arrive at, or continue in, its best state, with a delight to perceive it thrive and flourish, with a displeasure to see it suffer or decay, with a consequent endeavour to advance it in all good, and preserve it from all evil" Agreeably to this description, which consists of two parts, and was designed to comprise the tender love of the Creator towards created spirits, the great philosopher bursts forth in another place, with his usual animation and command of language, into the following panegyrick on the pious love of human souls toward the author of their happiness "Love is the sweetest and most delectable of all passions, and, when by the conduct of wisdom it is directed in a rational way toward a worthy, convenient, and attainable object, it cannot otherwise than fill the heart with ravishing delight such, in all respects, superlatively such, is God; who, infinitely beyond all other things, deserveth our affection, as most perfectly amiable and desirable, as having obliged us by innumerable

" and

a Drupe of developing



*Pandanus
Anchus*

" and inestimable benefits, all the good, that we have ever enjoyed, or
 " can ever expect, being derived from his pure bounty, all things in the
 " world in competition with him being mean and ugly, all things without
 " him, vain, unprofitable, and hurtful to us. He is the most proper object
 " of our love, for we chiefly were shamed, and it is the prime law of our
 " nature, to love him, our soul, from its original instant,argeth toer
 " as its centre, and can have no rest, till it be fixed on him. he alone can
 " satisfy the vast capacity of our minds, and fill our boundless desire. It,
 " of all lovely things, most certainly and easily may be attained for,
 " whereas, commonly men are crossed in their affection, and their love is
 " embittered from their affecting things imaginary, which they cannot reach,
 " or coy things, which disdain and reject them; it is with God quite otherwise.
 " He is most ready to impart himself, he most earnestly desires and
 " wooeth our love, he is not only most willing to correspond in affection,
 " but even doth prevent us thereto. He doth cheerfully and encourage our love by
 " sweetest influences and most consoling embraces, by kindest expressions of fa-
 " vor, by most beneficial returns, and, whereas all other objects do in their
 " enjoyment much fail our expectation, he doth even far exceed us.
 " Wherefore in all affectionate motions of our hearts toward God, in
 " desiring him, or seeking his favour and friendship, in raising him
 " or setting our esteem, our good will, our confidence in him, in ac-
 " companying him in devotional meditations and addresses, in a
 " respective sense of our interest and propriety in him, and in a
 " union of spirits, whereby we do closely adhere to, and are, as it were, in
 " him, in a hearty complacence in his benignity, a grateful sense of his
 " kindness, and a zealous desire of rendering some recompence for what we can
 " not but feel very pleasant transports indeed, that a vital spirit him-
 " self did in our hearts by the spirit of love, cannot be void of warmth, we

" cannot fix our eyes upon infinite beauty, we cannot taste infinite sweet-
 " nels, we cannot cleave to infinite felicity, without also perpetually rejoic-
 " ing in the first daughter of Love to God, Charity toward men, which,
 " in complexion and careful disposition, doth much resemble her mother ;
 " for she doth rid us from all those gloomy, keen, turbulent imaginations
 " and passions, which cloud our mind, which fret our heart, which dis-
 " compose the frame of our soul, from burning anger, from storming con-
 " cussion, from gnawing envy, from rankling spite, from racking suspici-
 " on, from distracting ambition and avarice, and, consequently, doth settle
 " our mind in an even temper, in a steady humour, in an harmonious
 " order, in that peasant state of tranquillity, which naturally doth result from
 " the avoidance of irregular passions." Now this passage from Barrow, (which
 borders, I admit, on quietism and enthusiastick devotion) differs only from
 the mystical theology of the *Sufis* and *Tyzis*, as the flowers and fruits of
Europe differ in scut and flavour from those of *Asia*, or as *European* differs
 from *Afriick* eloquence, the same strain, in poetical measure, would rise
 up to the odes of *Sevseia* on *Divine Love and Beauty*, and in a higher key
 with richer embellishment, to the songs of *Hazziz* and *Jiadez*, the raptures of the *Mafnac*, and the mysteries of the *Bbagarat*.

Before we come to the *Perians* and *Indians*, let me produce another speci-
 men of *European* theology, collected from a late excellent work of the
 illustrious M. NELER. " Were men animated, says he, with sublime
 " thoughts, did they respect the intellectual power, with which they are
 " adorned, and take an interest in the dignity of their nature, they would
 " embrace with transport that sense of religion, which ennobles their facul-
 " ties, keeps their minds in full strength, and unites them in idea with
 " him, whose immensity overwhelms them with astonishment considering
 " themselves

" themselves as an emanation from that infinite being, the source and cause of all
 " things, they would then disdain to be misled by a gloomy and false
 " philosophy, and would cherish the idea of a God, who *created*, who *re-*
 " *generates*, who *preserves* this universe by invariable law, and by a contin-
 " ued chain of similar causes producing similar effects, who pervades all
 " nature with his divine spirit, as an universal soul, which moves, directs,
 " and restrains the wondrous fabrick of this world. The blissful idea of
 " a God sweetens every moment of our time, and embellishes before us the
 " path of life, unites us delightfully to all the beauties of nature, and asso-
 " ciates us with every thing that lives or moves. Yes, the whisper of the
 " gales, the murmur of waters, the peaceful agitation of trees and shrubs,
 " would concur to engage our minds and affect our souls with tenderness, if
 " our thoughts were elevated to one universal cause, if we recognized on all
 " sides the work of *Hsu ukom we lere*, if we marked the traces of his august
 " steps and benignant intentions, if we believed ourselves actually present
 " at the display of his boundless power, and the magnificent exertions of
 " his unlimited goodness. Benevolence, among all the virtues, has a cha-
 " racter more than human, and a certain amiable simplicity in its nature,
 " which seems analogous to the first idea, the original intention of confer-
 " ring delight, which we necessarily suppose in the Creator, when we pre-
 " sume to seek his motive in bestowing existence. Benevolence is that
 " virtue, or, to speak more emphatically, that *primordial beauty*, which pre-
 " ceded all times and all worlds, and, when we reflect on it, there
 " appears an analogy, obscure indeed at present, and to us imperfectly
 " known, between our moral nature and a time yet very remote, when
 " we shall satisfy our ardent wishes and lively hopes, which constitute
 " perhaps a hath, and (if the phrase may be used) a distant sense. It
 " may even be imagined, that love, the brightest ornament of our na-

" ture, love, enchanting and sublime, is a mysterious pledge for the assurance of those hopes, since love, by disengaging us from ourselves, by transporting us beyond the limits of our own being, is the first step in our progress to a joyful immortality, and, by affording both the notion and example of a cherished object distinct from our own souls, may be considered as an interpreter to our hearts of something, which our intellects cannot conceive. We may seem even to hear the supreme intelligence and eternal soul of all nature, give this commission to the spirits which emanated from him. *Go, admire a small portion of my works, and study them; make your first trial of happiness, and learn to love him, who bestowed it, but seek not to remove the veil spread over the secret of your existence. Your nature is composed of those divine particles, which, at an infinite distance, constitute my own essence, but you would be too near me, were you permitted to penetrate the mystery of our separation and union. wait the moment ordained by my wisdom, and, until that moment come, hope to approach me only by adoration and gratitude.*""

If these two passages were translated into *Sanskrit* and *Perſian*, I am confident, that the *Vedantis* and *Sifis* would consider them as an epitome of their common system, for they concur in believing that the souls of men differ infinitely in *degree*, but not at all in *kind*, from the divine spirit, of which they are *particles*, and in which they will ultimately be absorbed, that the spirit of God pervades the universe, always immediately present to his work, and consequently always in substance, that he alone is perfect benevolence, perfect truth, perfect beauty, that the love of him alone is *real* and genuine love, while that of all other objects is absurd and illusory, that the beauties of nature are faint resemblances, like images in a mirror, of the divine charms, that, from eternity without

out beginning, to eternity without end, the supreme benevolence is occupied in bestowing happiness, or the means of attaining it, that men can only attain it by performing their part of the *primal covenants* between them and the Creator, that nothing has a pure absolute existence but *mind* or *spirit*, that *material substances*, as the ignorant call them, are no more than gay *pictures* presented continually to our *minds* by the sempiternal artist, that we must beware of attachment to such *phantoms*, and attach ourselves exclusively to God, who truly exists in us, as we exist solely in him, that we retain, even in this forlorn state of separation from our beloved, the *idea* of *heavenly beauty*, and the *remembrance* of our *primeval vows*, that sweet music, gentle breezes, fragrant flowers, perpetually renew the primary *idea*, refresh our fading memory, and melt us with tender affections, that we must cherish those affections, and by abstracting our souls from *vanity*, that is, from all but God, approximate to his essence, in our final union with which will consist our supreme beatitude. From these principles flow a thousand metaphors and other poetical figures, which abound in the sacred poems of the *Perians* and *Hindus*, who seem to mean the same thing in substance, and differ only in expression, as their languages differ in idiom. The modern *Su'ris*, who profess a belief in the *Koran*, suppose with great sublimity both of thought and of diction, an *express contract*, on the day of *eternity without beginning*, between the assemblage of created spirits and the supreme soul, from which they were detached, when a celestial voice pronounced these words, addressed to each spirit separately, ‘ Art thou not with “ thy Lord ? ” that is, art thou not bound by a solemn contract with him ? and all the spirits answered with one voice, “ Yes ” hence it is, that *ah*, or *art thou not*, and *bek*, or *yes*, incessantly occur in the mystical verses of the *Perians*, and of the *Turkish* poets, who imitate them, as

the *Romans* imitated the *Greeks*. The *Hindus* describe the same covenant under the figurative notion, so finely expressed by *ISAIAH*, of a *nuptial contract*, for considering God in the three characters of Creator, Regenerator, and Preserver, and supposing the power of *Preservation* and *Benevolence* to have become incarnate in the person of *KRISHNA*, they represent him as married to *R'DHA'*, a word signifying *atonement*, *pacification*, or *satisfaction*, but applied allegorically to *the soul of man*, or rather to *the whole assemblage of created souls*, between whom and the benevolent Creator they suppose that *reciprocal love*, which *BARROW* describes with a glow of expression perfectly oriental, and which our most orthodox theologians believe to have been mystically *shadowed* in the song of *SOLomon*, while they admit, that, in a *literal sense*, it is an epithalamium on the marriage of the sapient king with the princess of *Egypt*. The very learned author of the prelections on sacred poetry declared his opinion, that the *Canticles* were founded on historical truth, but involved an allegory of that sort, which he named *mystical*; and the beautiful poem on the loves of *LAILI* and *MAJNUM* by the inimitable *NIZA'MI* (to say nothing of other poems on the same subject) is indisputably built on true history, yet avowedly allegorical and mysterious, for the introduction to it is a continued rapture on *divine love*, and the name of *LAILI* seems to be used to the *Masnev* and the odes of *HAFIZ* for the omnipresent spirit of God.

It has been made a question, whether the poems of *HAFIZ* must be taken in a *literal* or in a *figurative* sense, but the question does not admit of a general and direct answer, for even the most enthusiastic of his commentators allow, that some of them are to be taken literally, and his editors ought to have distinguished them, as our *SPENSER* has distinguished his four odes on *Love* and *Beauty*, instead of mixing the profane with

with the divine, by a childish arrangement according to the alphabetical order of the rhymes. HAFIZ never pretended to more than human virtues, and it is known that he had human propensities, for, in his youth, he was passionately in love with a girl surnamed *Shakki Nebat*, or the *Branch of Sugar-cane*, and the prince of Shiraz was his rival since there is an agreeable wildness in the story, and since the poet himself alludes to it in one of his odes, I give it you at length from the commentary. There is a place called *Pirisebz*, or the *Green old man*, about four Persian leagues from the city, and a popular opinion had long prevailed, that a youth, who should pass forty successive nights in *Pirisebz* without sleep, would infallibly become an excellent poet. young HAFIZ had accordingly made a vow, that he would serve that apprenticeship with the utmost exactness, and for thirty-nine days he rigorously discharged his duty, walking every morning before the house of his coy mistress, taking some refreshment and rest at noon, and passing the night awake at his poetical station, but, on the fortieth morning, he was transported with joy on seeing the girl beckon to him through the lattices, and invite him to enter. She received him with rapture, declared her preference of a bright genius to the son of a king, and would have detained him all night, if he had not recollect ed his vow, and, resolute to keep it inviolate, returned to his post. The people of Shiraz add, (and the fiction is grounded on a couplet of HAFIZ) that early next morning an old man in a green mantle, who was no less a personage than KHIZR himself, approached him at *Pirisebz* with a cup brim full of nectar, which the Greeks would have called the water of *Aganippe*, and rewarded his perseverance with an inspiring draught of it. After his juvenile passions had subsided, we may suppose that his mind took that religious bent, which appears in most of his compositions, for there can be no doubt that the following distichs, collected from different odes, relate to the mystical theology of the *Sufis*:

“ In eternity without beginning, a ray of thy beauty began to gleam;
“ when love sprang into being, and cast flames over all nature;

“ On that day thy cheek sparkled even under thy veil, and all this
“ beautiful imagery appeared on the mirror of our fancies

“ Rise, my soul, that I may pour thee forth on the pencil of that
“ supreme artist, who comprised in a turn of his compass all this won-
“ derful scenery!

“ From the moment, when I heard the divine sentence, *I have breathed*
“ *into man a portion of my spirit*, I was assured, that we were His, and
“ He ours

“ Where are the glad tidings of union, with thee, that I may abandon
“ all desire of life! I am a bird of holiness, and would fain escape from
“ the net of this world.

“ Shed, O Lord, from the cloud of heavenly guidance, one cheering
“ shower, before the moment, when I must rise up like a particle of dry
“ dust!

“ The sum of our transactions, in this universe, is nothing bring us
“ the wine of devotion, for the possessions of this world vanish

“ The true object of heart and soul is the glory of union with our
“ beloved, that object really exists, but without it both heart and soul
“ would have no existence.

“ “O the

" O the bliss of that day, when I shall depart from this desolate mansion,
" shall seek rest for my soul, and shall follow the traces of my beloved.

" Dancing with love of his beauty, like a mote in a sun-beam, till I reach
" the spring and fountain of light, whence you sun derives all his lustre!"

The couplets, which follow, relate as indubitably to human love and
sensual gratifications

" May the hand never shake, which gathered the grapes! May the foot
" never slip, which pressed them!

" That poignant liquor, which the zealot calls the *mother of sins*, is plea-
" santer and sweeter to me than the kisses of a maiden.

" Wine two years old and a damsel of fourteen are sufficient society for
" me, above all companies great or small

" How delightful is dancing to lively notes and the cheerful melody of
" the flute, especially when we touch the hand of a beautiful girl.

" Call for wine, and scatter flowers around what more canst thou ask from
" fate? Thus spoke the nightingale this morning what sayest thou, sweet
" rose, to his precepts?

" Bring thy couch to the garden of roses, that thou mayest kiss the
" cheeks and lips of lovely damsels, quaff rich wine, and smell odoriferous
" blossoms.

" O branch

" O branch of an exquisite rose-plant, for whose sake dost thou grow?
 " Ah! on whom will that smiling rose-bud confer delight?"

" The rose would have discoursed on the beauties of my charmer, but
 " the gale was jealous, and stole her breath, before she spoke."

" In this age, the only friends who are free from blemish, are a flask
 " of pure wine and a volume of elegant love songs."

" O the joy of that moment, when the self-sufficiency of inebriation
 " rendered me independent of the prince and of his minister!"

Many zealous admirers of HA'RIZ insist, that by wine he invariably means *devotion*, and they have gone so far as to compose a dictionary of words in the *language*, as they call it, of the *Sufis* in that vocabulary, *sleep* is explained by *meditation* on the divine perfections, and perfume by *hope* of the divine favour, *gales* are *slaves* of grace; *kisses* and *embraces*, the raptures of piety, *idolators*, *infidels*, and *libertines*, are men of the purest religion, and their *soul* is the Creator himself, the *sovereign* is a *retired oratory*, and its *keeper*, a sage instructor; *beauty* denotes the *perfection* of the Supreme Being; *treasures* are the expansion of his glory, *lips* the hidden mysteries of his essence, *dews* on the cheek, the world of spirits, who encircle his throne, and a *black mole*, the *port* of indivisible unity, lastly, *tranquillity*, *mirth*, and *mirthiness*, mean religious ardour and abstraction from all terrestrial thoughts. The poet himself gives a colour in many passages to such an interpretation, and without it we can hardly conceive, that his poems, or those of his numerous imitators, would be tolerated in a *Moslem* country, especially at *Constantinople*, where they are venerated as divine compositions. It must be admitted, that the sublimity of the *mythical allegory*, which, like me-

taphors and comparisons, should be *general* only, not minutely exact, is diminished, if not destroyed, by an attempt at *particular* and *distinct resemblances*; and that the style is open to dangerous misinterpretation, while it supplies real infidels with a pretext for laughing at religion itself.

On this occasion I cannot refrain from producing a most extraordinary ode by a *Sufi* of *Bokbara*, who assumed the poetical surname of ISMAT a more modern poet, by prefixing three lines to each couplet, which rhyme with the first hemistich, has very elegantly and ingeniously converted the *Kashidab* into a *Mokhammas*, but I present you only with a literal version of the original distichs

“ Yesterday, half inebriated, I passed by the quarter where the vintners
“ dwell, to seek the daughter of an infidel who sells wine

“ At the end of the street, there advanced before me a damsel, with a
“ fairy’s cheeks, who, in the manner of a pagan, wore her tresses dishevelled
“ over her shoulders like the facerdotal thread I said O thou, to the arch
“ of whose eye-brow the new moon is a slave, what quarter is this, and where is
“ thy mansion?

“ She answered. Cast thy rosary on the ground, bind on thy shoulder she
“ thread of paganism, throw stones at the glass of piety, and quaff wine from a
“ full goblet;

“ After that come before me, that I may whisper a word in thine ear. thou wilt
“ accomplish thy journey, if thou listen to my discourse.

" Abandoning my heart, and rapt in extasy, I ran after her, till I came
" to a place, in which religion and reason forsook me.

" At a distance I beheld a company, all insane and inebriated, who came
" boozing and roaring with ardour from the wine of love,

" Without cymbals, or lutes, or viols, yet all full of mirth and melody,
" without wine, or goblet, or flask, yet all incessantly drinking

" When the cord of restraint slipped from my hand, I desired to ask
" her one question, but she said *Silence!*

" This is no square temple, to the gate of which thou canst arrive precipitately,
" this is no mosque to which thou canst come with tumult, but without knowledge
" This is the banquet-house of infidels, and within it all are intoxicated, all from
" the dawn of eternity to the day of resurrection lost in astonishment

" Depart then from the cloister, and take the way to the tavern, cast off the
" cloak of a dervise and wear the robe of a libertine.

" I obeyed, and, if thou desirest the same strain and colour with ISMAT,
" imitate him, and sell this world and the next for one drop of pure wine."

Such is the strange religion, and stranger language of the *Sufis*, but most
of the *Afsharick* poets are of that religion, and if we think it worth while to
read their poems, we must think it worth while to understand them. Their
great *Mashayekh* assures us, that " they profess eager desire, but with no car-
" nal affection, and circulate the cup, but no material goblet, since all
" things

"things are spiritual in their seat, all is mystery within mystery," consistently with which declaration, he opens his astonishing work, entitled the *Masnavi*, with the following couplets

Hear how yon reed in sadly-pleasing tales
 Departed bliss, and present wo bewails!
 ' With me from native banks untimely torn,
 ' Love-warbling youths and soft-ey'd virgins mourn
 ' O! let the heart, by fatal absence rent,
 ' Feel what I sing, and bleed when I lament
 ' Who roams in exile from his parent bow'r,
 ' Pants to return, and chides each ling'ring hour
 ' My notes, in circles of the grave and gay,
 ' Have hail'd the rising, cheer'd the closing day
 ' Each in my fond affections claim'd a part,
 ' But none discern'd the secret of my heart.
 ' What though my strains and sorrows flow combin'd!
 ' Yet ears are slow, and carnal eyes are blind
 ' Free through each mortal form the spirits roll,
 ' But sight avails not.—Can we see the soul?
 Such notes breath'd gently from yon vocal frame
 Breath'd said I? no, 'twas all enliv'ning flame
 'Tis love, that fills the reed with warmth divin',
 'Tis love, that sparkles in the racy wine
 Me, plaintive wand'rer from my peerless maid,
 The reed has fir'd, and all my soul betray'd
 He gives the bane, and he with balsam cures,
 Afflicts, yet sooths, impasses, yet allures.

Delightful pangs his am'rous tales prolong,
And LAILI's frankick lover lives in song.
Not he, who reasons best, this wisdom knows
Ears only drink what rapt'rous tongues disclose
Nor fruntles deem the reed's heart-piercing pain
See sweetnes dropping from the parted cane.
Alternate hope and fear my days divide,
I courted Grief, and Anguish was my bride
Flow on, sad stream of life! I smile secure
Thou livest, Thou, the purest of the pure!
Rise, vig'rous youth! be free, be nobly bold,
Shall chains confine you, though they blaze with gold?
Go, to your vase the gather'd main convey
What were your stores? The pittance of a day!
New plans for wealth your faneies would invent,
Yet shells, to nourish pearls, must lie content.
The man whose robe love's purple arrows rend
Bids av'rice rest and toils tumultuous end.
Hail, heav'ly love! true source of endles gains!
Thy balm restores me, and thy skill sustains.
Oh, more than GALEN learn'd, than PLATO wise!
My guide, my law, my joy supreme arise!
Love warms this frigid clay with mystick fire,
And dancing mountains leap with young desire.
Blest is the soul that swims in seas of love,
And long the life sustain'd by food above
With forms imperfect can perfection dwell?
Here pause, my fong, and thou, vain world, farewell.

A volume might be filled with similar passages from the *Sufi* poets, from SAVIB, ORFI, MI'R KHOSRAU, JA'MI, HAZI'N, and SA'SIK, who are next in beauty of composition to HA'RIZ and SADI, but next at a considerable distance, from MEAS'HI, the most elegant of their *Turkysh* imitators, from a few *Hindu* poets of our own times, and from ISHUL FA'RED, who wrote mystical odes in *Arabick*; but we may close this account of the *Sufis* with a passage from the third book of the *BUSTAN*, the declared subject of which is *divine love*, referring you for a particular detail of their metaphysics and theology to the *Dabistan* of MOHSANI FANI, and to the pleasing essay, called the *Juncture of two Seas*, by that amiable and unfortunate prince, DA'R'A SRIBU'R

“ The love of a being composed, like thyself, of water and clay, destroys thy patience and peace of mind, it excites thee, in thy waking hours, with minute beauties, and engages thee in thy sleep, with vain imaginations: with such real affection dost thou lay thy head on her foot, that the universe, in comparison of her, vanishes into nothing before thee, and, since thy gold allures not her eye, gold and mere earth appear equal in thine. Not a breath dost thou utter to any one else, for with her thou hast no room for any other, thou declarest that her abode is in thine eye, or, when thou closest it, in thy heart, thou hast no fear of censure from any man, thou hast no power to be at rest for a moment, if she demands thy soul, it runs instantly to thy lip, and if she waves a cimeter over thee, thy head falls immediately under it. Since an absurd love, with its habis on air, affects thee so violently, and commands with a fway so despouck, canst thou wonder, that they who walk in the true path, are drowned in the sea of mysterious adoration? They disregard life through affection for its giver, they abandon the world through re-
“ membrance

" membrance of its maker , they are inebriated with the melody of amo-
 " rous complaints , they remember their beloved, and resign to him both
 " this life and the next Through remembrance of Gov, they shun all
 " mankind they are so enamoured of the cup-bearer, that they spill the
 " wine from the cup No panacea can heal them, for no mortal can be
 " apprized of their malady , so loudly has rung in their ears, from eternity
 " without beginning, the divine word *alef*, with *beth*, the tumultuous ex-
 " clamatioo of all spirits They are a feet fully employed, but fitting in
 " retirement , their feet are of earth, but their breath is a flame with a
 " single yell they could rend a mountain from its base, with a single cry
 " they could throw a city into confusion like wind, they are concealed
 " and move numbly , like stone, they are silent, yet repeat Goo's praises.
 " At early dawn their tears flow so copiously as to wash from their eyes
 " the black powder of sleep though the courier of their fancy ran so
 " swiftly all night, yet the morning finds them left behind in disorder night
 " and day they are plunged in an ocean of ardent desire, till they are un-
 " able, through astonishment, to distinguish night from day. So enraptured
 " are they with the beauty of Him, who decorated the human form, that,
 " with the beauty of the form itself, they have no concern , and if ever
 " they behold a beautiful shape, they see in it the mystery of Goo's work

" The wise take not the husk in exchange for the kernel, and he, who
 " makes that choice, has no understanding He only has drunk the pure
 " wine of unity, who has forgotten, by remembering God, all things else in
 " both worlds "

Let us return to the *Hindus*, among whom we now find the same emblematical
 theology, which PYTHAGORAS admired and adopted The loves of CRISHNA
 and

and RADHA, or the reciprocal attraction between the divine goodness and the human soul, are told at large in the tenth book of the *Bhagavat*, and are the subject of a little *Pastoral Drama*, entitled *Gitagovinda*. It was the work of JAYADEVA, who flourished, it is said, before CALIDAS, and was born, as he tells us himself, in *Cenduli*, which many believe to be in *Calicca*, but since there is a town of a similar name in *Burdwan*, the natives of it insist that the finest lyric poet of *India* was their countryman, and celebrate, in honour of him, an annual jubilee, passing a whole night in representing his drama, and in singing his beautiful songs. After having translated the *Gitagovinda* word for word, I reduced my translation to the form, in which it is now exhibited, omitting only those passages, which are too luxuriant and too bold for an *European* taste, and the prefatory ode on the ten incarnations of VISHNU, with which you have been presented on another occasion the phrases in *Italicks*, are the burdens of the several songs, and you may be assured, that not a single image or idea has been added by the translator.

GITA GÖVINDA,

OR,

THE SONGS OF JAYADEVA.

THE firmament is obscured by clouds, the woodlands are black with Tamila-trees, that youth, who roves in the forest, will be fearful in the gloom of night, go, my daughter, bring the wanderer home to "my rustic mansion" Such was the command of NANDA, the fortunate herdsman, and hence arose the love of RA'DHUV and MA'DHAVA, who sported on the bank of Yamuna, or hastened eagerly to the secret bower.

If thy soul be delighted with the remembrance of HARI, or sensible to the raptures of love, listen to the voice of JAYADEVA, whose notes are both sweet and brilliant O thou, who reclinest on the bosom of CAMALA', whose ears flame with gems, and whose locks are embellished with sylvan flowers, thou, from whom the day-star derived his effulgence, who flewest the venom-breathing CA'LII, who beamedst, like a sun, on the tribe of YADU, that flourished like a lotos, thou, who sittest on the plumage of GARURA, who, by subduing demons, gavest exquisite joy to the assembly of immortals, thou, for whom the daughter of JANACA was decked in gay apparel, by whom Du'shANA was overthrown, thou, whose eye sparkles like the water-lily, who calledst three worlds into existence, thou, by whom the rocks of Mandar were easily supported, who

sippest nectar from the radiant lips of PEDMA', as the fluttering Chacóra
drinks the moon-beams, be victorious, O HERI, lord of conquest!

RA'DHA' fought him long in vain, and her thoughts were confounded by the fever of desire she roved in the vernal morning among the twining *Vasanthus* covered with soft blossoms, when a damsel thus addressed her with youthful hilarity 'The gale, that has wantoned round the beautiful clove-plants, breathes now from the hills of Malaya, the circling arbours resound with the notes of the *Cocil* and the murmurs of honey making swarms. Now the hearts of damsels, whose lovers travel at a distance, are pierced with anguish, while the blossoms of *Bacul* are conspicuous among the flowerets covered with bees. The *Tamala*, with leaves dark and odorous, claims a tribute from the musk, which it vanquishes, and the clustering flowers of the *Palasa* resemble the nails of CA'MA, with which he rends the hearts of the young. The full-blown *Cesara* gleams like the sceptre of the world's monarch, Love, and the pointed thyrses of the *Cetaca* resembles the darts, by which lovers are wounded. See the bunches of *Patala*-flowers filled with bees, like the quiver of SMARA full of shafts, while the tender blossom of the *Caruna* smiles to see the whole world laying shame aside. The far-scented *Madbovi* beautifies the trees, round which it twines, and the fresh *Mallica* seduces, with rich perfume, even the hearts of hermits, while the *Antra*-tree with blooming tresses is embraced by the gay creeper *Ais-mucha*, and the blue streams of Yamuna wind round the groves of Vrindavan. In this charming season, which gives pain to separated lovers, young HERI sports and dances with a company of damsels. A breeze, like the breath of love, from the fragrant flowers of the *Cetaca*, kindles every heart, whilst it perfumes the woods with the dust, which it shakes from the *Mallica* with

half-

' half-opened buds, and the *Cocila* bursts into song, when he sees the
' blossoms glistening on the lovely *Rasala*.'

The jealous RA'DHA' gave no answer, and, soon after, her officious friend, perceiving the foe of MUSA, in the forest, eager for the rapturous embraces of the herdsmen's daughters, with whom he was dancing, thus again addressed his forgotten mistress ' With a garland of wild flowers descending even to the yellow mantle, that girds his azure limbs, distinguished by smiling cheeks and by ear-rings, that sparkle, as he plays, HERI caults in the assemblage of amorous damsel's One of them presses him with her swelling breast, while she warbles with exquisite melody Another, affected by a glance from his eye, stands meditating on the lotos of his face A third, on pretence of whispering a secret in his ear, approaches his temples, and kisses them with ardour One seizes his mantle and draws him towards her, pointing to the bower on the banks of Yamuna, where elegant *Vanyulas* interweave their branches He applauds another, who dances in the sportive circle, whilst her bracelets ring, as she beats time with her palms Now he caresses one, and kisses another, smiling on a third with complacency, and now he chases her, whose beauty has most allured him Thus, the wanton HERI frolics, in the season of sweets, among the maids of *Vraca*, who rush to his embraces, as if he were Pleasure itself assuming a human form, and one of them, under a pretext of hymning his divine perfections, whispers in his ear " Thy lips, my beloved, are nectar."

RA'DHA' remains in the forest, but resenting the promiscuous passion of HERI, and his neglect of her beauty, which he once thought superior, she retires to a bower of twining plants, the summit of which resounds

with the humming of swarms engaged in their sweet labours, and there,
 falling languid on the ground, she thus addresses her female companion
Though he take recreation in my absence, and smile on all around him, yet my soul
 remembers *Him*, whose beguiling reed modulates a tune sweetened by the
 nectar of his quivering lip, while his ear sparkles with gems, and his eye
 darts amorous glances, *Him*, whose locks are decked with the plumes of
 peacocks resplendent with many-coloured moons, and whose mantle
 gleams like a dark-blue cloud illuminated with rao-bows, *Him*, whose
 graceful smile gives new lustre to his lips, brilliant and soft as a dewy
 leaf, sweet and ruddy as the blossom of *Bandbyra*, while they tremble
 with eagerness to kiss the daughters of the herdsmen, *Him*, who disperses
 the gloom with beams from the jewels, which decorate his bosom, his
 wrists, and his ankles, on whose forehead shines a circlet of sandal wood,
 which makes even the moon contemptible, when it fails through irradiated
 clouds, *Him*, whose ear-rings are formed of entire gems in the shape of the
 fish *Macar* on the banners of Love, even the yellow-robed God, whose at-
 tendants are the chiefs of deities, of holy men, and of demons, him, who
 reclines under a gay *Cadambe*-tree, who formerly delighted me, while he
 he gracefully waved in the dance, and all his soul sparkled in his eye. My
 weak mind thus enumerates his qualities, and, though offended, strives to
 banish offence. What else can it do? It cannot part with its affection for
 CRISHNA, whose love is excited by other damsels, and who sports in the
 absence of RA'DHA' Bring, O friend, that vanquisher of the demoo Cr'si,
 to sport with me, who am repairing to a secret bower, who look timidly on all
 sides, who meditate with amorous fancy on his divine transfiguration Bring
 him, whose discourse was once composed of the gentlest words, to converse
 with me, who am bashful on his first approach, and express my thoughts
 with a smile sweet as honey. Bring him, who formerly slept on my bo-
 som,

' fom, to recline with me on a green bed of leaves just gathered, while
 ' his lip sheds dew, and my arms enfold him Bring him, who has attained
 ' the ' perfection of skill in love's art, whose hand used to press these firm
 ' and delicate spheres, to play with me, whose voice rivals that of the
 ' *Cocci*, and whose tresses are bound with waving blossoms Bring him, who
 ' formerly drew me by the locks to his embrace, to repose with me, whose
 ' feet tinkle, as they move, with rings of gold and of gems, whose loosened
 ' zone founders, as it falls, and whose limbs are slender and flexible as the
 ' creeping plant. That God, whose cheeks are beautified by the nectar
 ' of his smiles, whose pipe drops to his extasy, I saw in the grove en-
 ' circled by the damsels of *Vraja*, who gazed on him askance from the corners
 ' of their eyes I saw him in the grove with happier damsels, yet the sight
 ' of him delighted me. Soft is the gale, which breathes over yon clear pool,
 ' and expands the clustering blossoms of the volatile *Ajoca*, soft, yet griev-
 ' ous to me in the absence of the foe of *MADHU* Delightful are the flow-
 ' ers of *Amra*-trees on the mountain-top, while the murmuring bees pur-
 ' sue their voluptuous toil, delightful, yet afflicting to me, O friend, in the
 ' absence of the youthful *Ce'sava* '

Meantime, the destroyer of *CANSA*, having brought to his remembrance
 the amiable *RA'DHA*', forsook the beautiful damsels of *Vraja* he sought
 her in all parts of the forest, his old wound from love's arrow bled again,
 he repented of his levity, and seated in a hower near the bank of *Yamuna*,
 the blue daughter of the sun, thus poured forth his lamentation.

' She is departed—she saw me, no doubt, surrounded by the wanton sheep-
 ' herdesses, yet, conscious of my fault, I durst not intercept her flight.
 ' *Wo is me!* she feels a sense of injured honour, and is departed in wrath How
 ' will

' will she conduct herself? How will she express her pain in so long a
 ' separation? What is wealth to me? What are numerous attendants?
 ' What are the pleasures of the world? What joy can I receive from a hea-
 ' venly abode? I seem to behold her face with eye-brows contrasting them-
 ' selves through her just resentment it resembles a fresh lotos, over which
 ' two black bees are fluttering I seem, so present is she to my imagination,
 ' even now to caress her with eagerness Why then do I seek her in this
 ' forest? Why do I lament without cause? O slender damsel, anger, I know,
 ' has torn thy soft bosom, but whether thou art retired, I know not.
 ' How can I invite thee to return? Thou art seen by me, indeed, in a
 ' vision, thou seemest to move before me Ah! why dost thou not rush,
 ' as before, to my embrace? Do but forgive me never again will I com-
 ' mit a similar offence Grant me but a sight of thee, O lovely RA'DHICA',
 ' for my passion torments me. I am not the terrible MAHESA a garland
 ' of water lilies with subtle threads decks my shoulders, not serpents with
 ' twisted folds the blue petals of the lotos glitter on my neck, not the
 ' azure gleam of poison powdered sandal-wood is sprinkled on my limbs,
 ' not pale ashes O God of Love, mistake me not for MAKA'DEVA
 ' Wound me not again, approach me not in anger, I love already but
 ' too passionately, yet I have lost my beloved Hold not in thy hand
 ' that shaft barbed with an *Amra*-flower! Brace not thy bow, thou con-
 ' queror of the world! Is it valour to slay one who faints? My heart is al-
 ' ready pierced by arrows from RA'DHA's eyes, black and keen as those
 ' of an antelope, yet mine eyes are not gratified with her presence Her
 ' eyes are full of shafts her eye-brows are bows, and the tips of her ears
 ' are silken strings. thus armed by ANANGA, the God of Desire, she
 ' marches, herself a goddess, to ensure his triumph over the vanquished
 ' universe I meditate on her delightful embrace, on the ravishing glances
 ' darted from her eye, on the fragrant lotos of her mouth, on her nectar-

‘ dropping speech, on her lips, ruddy as the berries of the *Bimba*; yet even
 ‘ my fixed meditation on such an assemblage of charms encreases, instead of
 ‘ alleviating the misery of separation’

The damsel, commissioned by Rādhā, found the disconsolate God under an arbour of spreading *Vanras* by the side of *Yamuna*, where presenting herself gracefully before him, she thus described the affliction of his beloved

‘ She despises essence of sandal-wood, and ever by moon-light fits brooding over her gloomy sorrow, she declares the gale of *Maleya* to be venom, and the sandal-trees, through which it has breathed, to have been the haunt of serpents Thus, O Mādhaba, is she afflicted in thy absence with the pain, which love’s dart has occasioned her soul is fixed on thee Fresh arrows of desire are continually assailing her, and she forms a net of lotos-leaves as armour for her heart, which thou alone shouldest fortify She makes her own bed of the arrows darted by the flowery-shafted God, but, when she hoped for thy embrace, she had formed for thee a couch of soft blossoms Her face is like a water lily, veiled in the dew of tears, and her eyes appear like moons eclipsed, which let fall their gathered nectar through pain caused by the tooth of the furious dragon She draws thy image with malk in the character of the Deity with five shafts, having subdued the *Macar*, or borned shark, and holding an arrow upped with an *Amra*-flower, thus she draws thy picture, and worships it At the close of every sentence, “O Mādhava, she exclaims, at thy feet am I fallen, and in thy absence even the moon, though it be a vase full of nectar, inflamee my limbs” Then, by the power of imagination, she figures thee standing before her, thee who art not easily attained she sighs,

' sighs, she smiles, she mourns, she weeps, she moves from side to side,
' she laments and rejoices by turns. Her abode is a forest, the circle of
' her female companions is a net, her sighs are flames of fire kindled in
' a thicket, herself (alas! through thy absence) is become a timid doe;
' and Love is the tiger, who springs on her like YAMA, the Genius of Death.
' So emaciated is her beautiful body, that even the light garland, which
' waves over her bosom, she thinks a load. Such, O bright-hued God, is
' RA'DHA', when thou art absent. If powder of sandal-wood finely levigated
' be moistened and applied to her breasts, she starts, and mistakes it for
' poison. Her sighs form a breeze long extended, and burn her like the
' flame which reduced CARDARPA to ashes. She throws around her eyes,
' like blue water-lilies with broken stalks, dropping lucid streams. Even
' her bed of tender leaves appears in her sight like a kindled fire. The
' palm of her hand supports her aching temple, motionless as the crescent
' rising at eve. "HERI, HERI," thus in silence she meditates on thy name,
' as if her wish were gratified, and she were dying through thy absence.
' She rends her locks, she pants, she laments inarticulately, she trembles,
' she pines, she musing, she moves from place to place, she cloths her eyes,
' she falls, she rises again, she faints in such a fever of love, she may
' live, O celestial physician, if Thou administer the remedy, but, shouldst
' Thou be unkind, her malady will be desperate. Thus, O divine healer,
' by the nectar of thy love must RA'DHA' be restored to health, and, if
' thou refuse it, thy heart must be harder than the thunderstone. Long
' has her soul pined, and long has she been heated with sandal-wood,
' moon light, and water lilies, with which others are cooled, yet she pa-
' tiently and in secret meditates on Thee, who alone canst relieve her.
' Shouldst thou be inconstant, how can she, wasted as she is to a sha-
' dow, support life a single moment? How can she who lately could not

' endure thy absence even an instant, forbear sighing now, when she looks
 ' with half-closed eyes on the *Rajala* with bloomy branches, which remind
 ' her of the vernal season, when she first beheld thee with rapture ?

' Here have I chosen my abode go quickly to RA'DHAT', soothe her
 ' with my message, and conduct her hither' So spoke the soe of MADHU
 to the anxious damsel, who hastened back and thus addressed her companion ' Whilst a sweet breeze from the hills of Malaya comes wafting on his
 ' plumes the young God of Desire, while many a flower points his extend-
 ' ed petals to pierce the bosom of separated lovers, *the Daisy crowned*
' with sylvan blossoms, laments, O friend, in thy absence. Even the dewy rays
 ' of the moon burn him, and, as the shaft of love is descending, he mourns
 ' inarticulately with increasing distraction When the bees murmur softly,
 ' he covers his ears, misery sits fixed in his heart, and every returning
 ' night adds anguish to anguish. He quits his radiant place for the wild
 ' forest, where he sinks on a bed of cold clay, and frequently mutters thy
 ' name In yon bower, to which the pilgrims of love are used to repair, he
 ' meditates on thy form, repeating in silence lone enchanting word, which
 ' once dropped from thy lips, and thirsting for the nectar, which they alone
 ' can supply Delay not, O loveliest of women, follow the lord of thy
 ' heart behold, he seeks the appointed shade, bright with the ornaments of
 ' love, and confident of the promised bliss *Having bound his locks with forest-*
' flowers, he hastens to yon arbour, where a soft gale breathes over the banks of Ya-
 ' munà there, again pronouncing thy name, he modulates his divine reed.
 ' Oh ! with what rapture doth he gaze on the golden dust which the breeze
 ' shakes from expanded blossoms, the breeze, which has kissed thy cheek'
 ' With a mind, languid as a dropping wing, feeble as a trembling leaf, he
 ' doubtfully expects thy approach, and timidly looks on the path, which thou

' must tread Leave behind thee, O friend, the ring which tinkles on thy
 ' delicate ankle, when thou sportest in the dance, hastily cast over thee
 ' thy azure mantle, and run to the gloomy bower The reward of thy
 ' speed, O thou, who sparklest like lightning, will be to shine on the blue
 ' bosom of MURA'RJ, which resembles a vernal cloud, decked with a string
 ' of pearls, like a flock of white water birds fluttering in the air Dis-
 ' appoint not, O thou lotos-eyed, the vanquisher of MADHU, accomplish
 ' his desire, but go quickly, it is night, and the night also will quickly
 ' depart Again and again he sighs, he looks around, he re-enters the
 ' arbour, he can scarce articulate thy sweet name, he again smooths his
 ' flowery couch, he looks wild, he becomes faintick thy beloved will pe-
 ' nish through desire The bright-heathed God sinks in the west, and thy
 ' pain of separation may also be removed the blackness of the night is in-
 ' creased, and the passionate imagination of Go'VIVDA has acquired addi-
 ' tional gloom My address to thee has equalled in length and in sweetnes
 ' the song of the *Ceala* delay will make thee miserable, O my beautiful
 ' friend Seize the moment of delight in the place of assignation with the
 ' son of DE'VACI', who descended from heaven to remove the burdens of
 ' the universe, he is a blue gem on the forehead of the three worlds, and
 ' longs to sip honey, like the bee, from the fragrant lotos of thy cheek '

But the solicitous maid, perceiving that RA'DHAI' was unable through
 debility to move from her arbour of flowery creepers, returned to GO'-
 VIVDA, who was himself disordered with love, and thus described her
 situation

' She mourns, O sovereign of the world, in her verdant bower, she looks ea-
 ' gerly on all sides, in hope of thy approach, then, gaining strength from
 ' the

' the delightful idea of the proposed meeting, she advances a few steps,
 ' and falls languid on the ground When she rises, she weaves bracelets
 ' of fresh leaves, she dresses herself like her beloved, and, looking at her-
 ' self, in sport, exclaims, " Behold the vanquisher of MADHUB!" Then she
 ' repeats again and again the name of HERI, and, catching at a dark blue
 ' cloud, strives to embrace it, saying " It is my beloved who approaches."
 ' Thus, while thou art dilatory, she lies expecting thee, she mourns, she
 ' weeps, she puts on her gayest ornaments to receive her lord, she com-
 ' presses her deep sighs within her bosom, and then, meditating on thee,
 ' O cruel, she is drowned in a sea of rapturous imaginations. If a leaf
 ' but quiver, she supposes thee arrived, she spreads her couch, she forms
 ' in her mind a hundred modes of delight yet, if thou go not to her
 ' bower, she must die this night through excessive anguish.'

By this time the moon spread a net of beams over the groves of *Vrindavan*, and looked like a drop of liquid sandal on the face of the sky, which smiled like a beautiful damsel, while its orb, with many spots, betrayed, as it were, a consciousness of guilt, in having often attended amorous maids to the loss of their family honour The moon, with a black swan couched on its disc, advanced in its nightly course, but MADHAVA had not advanced to the bower of RA'DHA, who thus bewailed his delay with notes of varied lamentation

' The appointed moment is come, but HERI, alas! comes not to the
 ' grove Must the season of my unblemished youth pass thus idly away?
 ' Oh! what refuge can I seek, deluded as I am by the guile of my female
 ' adviser? The God with five arrows has wounded my heart, and I am de-
 ' fended by Him, for whose sake I have fought at night the darkest recess

of the forest. Since my best beloved friends have deceived me, it is my wish to die since my senses are disordered, and my bosom is on fire, why stay I longer in this world? The coolness of this vernal night gives me pain, instead of refreshment some happier damsels enjoys my beloved, whilst I, alas! am looking at the gems in my bracelets, which are blackened by the flames of my passion My neck, more delicate than the tenderest blossom, is burt by the garland that encircles it flowers, are, indeed, the arrows of Love, and he plays with them cruelly I make this wood my dwelling I regard not the roughness of the *Vetas*-trees, but the destroyer of MADHU holds me not in his remembrance! Why comes he not to the bower of bloomy *Vanyulas*, assigned for our meeting? Some ardent rival, no doubt, keeps him locked in her embrace or have his companions detained him with mirthful recreations? Else why roams he not through the cool shades? Perhaps, the heart-sick lover is unable through weakness to advance even a step!—So saying, she raised her eyes, and, seeing her damsel return silent and mournful, unaccompanied by MADHAVA, she was alarmed even to phrensy, and, as if she actually beheld him in the arms of a rival, she thus described the vision which overpowered her intellect

Yes, in habiliments becoming the war of love, and with tresses waving like flowery banners, a damsel more alluring than RA'DHA!, enjoys the conqueror of MADHU Her form is transfigured by the touch of her divine lover, her garland quivers over her swelling bosom, her face like the moon is graced with clouds of dark hair, and trembles, while she quaffs the nectareous dew of his lip, her bright ear-rings dance over her cheeks, which they irradiate, and the small bells on her girdle tinkle as she moves. Bathful at first, she smiles at length on her embracer, and ex-
prefles

' presses her joy with inarticulate murmurs, while she floats on the waves
 ' of desire, and closes her eyes dazzled with the blaze of approaching C'-
 ' MA and now this heroine in love's warfare falls exhausted and vanquished
 ' by the relentless MURA'RI, but, alas! in my bosom prevails the flame of
 ' jealousy, and yon moon, which dispels the sorrow of others, increases
 ' mine See again, whence the *fœ* of MURA, *sports in yon grove on the bank*
 ' of the Yamunâ! See, how he kisses the lip of my rival, and imprints on
 ' her forehead an ornament of pure musk, black as the young antelope on
 ' the lunar orb! Now, like the husband of RETI, he fixes white blossoms on
 ' her dark locks, where they gleam like flashes of lightning among the curled
 ' clouds On her breasts, like two firmaments, he places a string of gems,
 ' like a radiant constellation he brods on her arm, graceful as the stalks of
 ' the water-lily, and adorned with hands glowing like the petals of its flower,
 ' a bracelet of sapphires, which resemble a cluster of bees Ah! see, how
 ' he ties round her waist, a rich girdle illuminated with golden bells, which
 ' seem to laugh, as they tinkle, at the inferior brightness of the leafy gar-
 ' lands, which lovers hang on their bowers, to propitiate the God of Desire
 ' He places her soft foot, as he reclines by her side, on his ardent bosom,
 ' and stains it with the ruddy hue of Yavaca Say, my friend, why pales
 ' I my nights in this tangled forest without joy, and without hope, while
 ' the faithless brother of HALADHUR claps my rival in his arms? Yet why,
 ' my companion, shouldst thou mourn, though my perfidious youth has dil-
 ' appointed me? What offence is it of thine, if he sport with a crowd of dam-
 ' sel happier than I? Mark, how my soul, attracted by his irresistible charms,
 ' bursts from its mortal frame, and rushes to mix with its beloved She,
 ' whom the God enjoys, crowned with *syvan flowers*, sits carelessly on a bed of
 ' leaves with Him, whose wanton eyes resemble blue water lilies agitated by the
 ' breeze.

* breeze She feels no flame from the gales of *Malaya* with Him, whose
 * words are sweeter than the water of life She derides the shafts of foul-
 * born CA'MA with Him, whose lips are like a red lotos in full bloom.
 * She is cooled by the moon's dewy beams, while she reclines with Him,
 * whose hands and feet glow like vernal flowers. No female companion
 * deludes her, while she sports with Him, whose vesture blazes like tried gold.
 * She faints not through excess of passion, while she caresses that youth,
 * who surpasses in beauty the inhabitants of all worlds O gale, scented
 * with sandal, who breathest love from the regions of the south, be propitious
 * but for a moment when thou hast brought my beloved before my eyes,
 * thou mayest freely waft away my soul Love, with eyes like blue water-
 * lilies, again assails me and triumphs, and, while the perfidy of my beloved
 * rends my heart, my female friend is my foe, the cool breeze scorches me
 * like a flame, and the nectar dropping moon is my poison Bring disease
 * and death, O gale of *Malaya*! Seize my spirit, O God with five arrows! I
 * ask not mercy from thee no more will I dwell in the cottage of my fa-
 * ther Receive me in thy azure waves, O sister of YAMA, that the ardour
 * of my heart may be allayed!

Pierced by the arrows of love, she passed the night in the agonies of de-
 spair, and at early dawn thus rebuked her lover, whom she saw lying pro-
 strate before her, and imploring her forgiveness

* Alas! alas! Go, M'DHIVI, depart, O CE'SAVI. speak not the lan-
 * guage of gentle, follow her, O lotos-eyed God, follow her who dispels thy
 * care. Look at his eye half-opened, red with continued waking through
 * the pleasurable night, yet smiling still with affection for my rival!
 * Thy teeth, O cerulean youth, are azure as thy complexion from the kisses,
 * which

which thou hast imprinted on the beautiful eyes of thy darling, graced
 with dark blue powder, and thy limbs marked with puncture, in love's
 warfare, exhibit a letter of conquest written on polished sapphires with li-
 quid gold That broad bosom, stained by the bright lotos of her foot,
 displays a vesture of ruddy leaves over the tree of thy heart, which trem-
 bles within it The pressure of her lip on thine wounds me to the soul
 Ah! how canst thou affect, that we are one, since our sensations differ thus
 widely? Thy soul, O dark-limbed God, shows its blackness externally
 How couldst thou deceive a girl, who relied on thee, a girl, who burned
 in the fever of love? Thou rovest in woods, and females are thy prey what
 wonder? Even thy childish heart was malignant, and thou gavest death
 to the nurse, who would have given thee milk Since thy tenderness for
 me, of which these forefathers used to talk, has now vanished, and since thy
 breast, reddened by the feet of my rival, glows as if thy ardent passion
 for her were bursting from it, the sight of thee, O deceiver, makes me (ah!
 must I say it?) blush at my own affection'

Having thus inveighed against her beloved, she sat overwhelmed in grief,
 and silently meditated on his charms, when her damsel softly addressed
 her

He is gone the light air has wafted him away What pleasure now,
 my beloved, remains in thy mansion? Continue not, resentful woman, thy
 indignation against the beautiful MA'DHAVA Why shouldst thou render
 vain those round smooth vases, ample and ripe as the sweet fruit of yon
 Tala-tree? How often and how recently have I said, " forsake not the
 hlooming HERI?" Why sittest thou so mournful? Why weepest thou
 with distraction, when the damsels are laughing around thee? Thou hast
 * formed

' formed a couch of soft lotos-leaves let thy darling charm thy sight, while
 ' he reposes on it. Afflict not thy soul with extreme anguish, but attend
 ' to my words, which conceal no guile. Suffer Ce'sava to approach let
 ' him speak with exquisite sweetnes, and dissipate all thy sorrows If thou
 ' art harsh to him, who is amiable, if thou art proudly silent, when he de-
 ' precates thy wrath with lowly prostrations, if thou shovest aversion to
 ' him, who loves thee passionately, if, when he bends before thee, thy face
 ' be turned contemptuously away, by the same rule of contrariety, the dust
 ' of sandal-wood, which thou hast sprinkled, may become poison, the moon,
 ' with cool beams, a scorching sun, the fresh dew, a consuming flame, and
 ' the sports of love be changed into agony'

Ma'dhava was not absent long he returned to his beloved, whose
 cheeks were heated by the sultry gale of her sighs Her anger was dimi-
 nished, not wholly abated, but she secretly rejoiced at his return, while
 the shades of night also were approaching She looked abashed at her
 damscl while He, with faltering accents, implored her forgiveness

' Speak but one mild word, and the rays of thy sparkling teeth will
 ' dispel the gloom of my fears My trembling lips, like thrifty Chacoras,
 ' long to drink the moonbeams of thy cheek O my darling, who art natu-
 ' rally so tender-hearted, abandon thy causeless indignation At this moment the
 ' flame of desire consumes my heart Oh! grant me a draught of honey from the
 ' lotos of thy mouth Or, if thou beest inexorable, grant me death from
 ' the arrows of thy keen eyes, make thy arms my chains, and punish me
 ' according to thy pleasure Thou art my life, thou art my ornament;
 ' thou art a pearl in the ocean of my mortal birth oh! be favourable now,
 ' and my heart shall eternally be grateful. Thine eyes, which nature for-

* med

* med like blue water-lilies, are become, through thy resentment, like petals
 * of the crimson lotos. oh! tinge with their effulgence these my dark limbs,
 * that they may glow like the shafts of Love tipped with flowers. Place on
 * my head that foot like a fresh leaf, and shade me from the sun of my
 * passion, whose beams I am unable to bear. Spread a ring of gems on
 * those two soft globes, let the golden bells of thy zone tinkle, and proclaim
 * the mild east of love. Say, O damsel, with delicate speech, shall I dye
 * red, with the juice of *alastara*, those beautiful feet, which will make the
 * full-blown land-lotos blush with shame? Abandon thy doubts of my
 * heart, now indeed fluttering through fear of thy displeasure, but hereafter
 * to be fixed wholly on thee; a heart, which has no room in it for another
 * none else can enter it, but Love, the bodiless God. Let him wing his
 * arrows, let him wound me mortally, decline not, O cruel, the pleasure
 * of seeing me expire. Thy face is bright as the moon, though its beams
 * drop the venom of maddening desire. Let thy nectareous lip be the charm-
 * er, who alone has power to lull the serpent, or supply an antidote for his
 * poison. Thy silence afflicts me oh! speak with the voice of music, and
 * let thy sweet accents allay my ardour. Abandon thy wrath, but abandon
 * not a lover, who surpasses in beauty the sons of men, and who kneels
 * before thee, O thou most beautiful among women. Thy lips are a *Band-*
 * *byurva*-flower, the lustre of the *Madhuca* beams on thy cheek, thine eye
 * outshines the blue-lotos, thy nose is a bud of the *Tila*, the *Cunda*-blob-
 * som yields to thy teeth thus the flowery-shafted God borrows from thee
 * the points of his darts, and subdues the universe. Surely, thou descendest
 * from heaven, O slender damsel, attended by a company of youthful god-
 * deesses, and all their beauties are collected in thee'

He spake; and seeing her appeased by his homage, flew to his bower,

clad in a gay mantle The night now veiled all visible objects; and the damsel thus exhorted RA'DHICA', while she decked her with beaming ornaments

' Follow, gentle RA'DHICA', follow the foe of MADHU his discourse was
 elegantly composed of sweet phrases, he prostrated himself at thy feet,
 and he now hastens to his delightful couch by yon grove of branching
Vanyulas. Bind round thy ankle rings beaming with gems, and advance
 with mincing steps, like the pearl-fed *Mareia* Drink with ravished ears
 the soft accents of HERI, and feast on love, while the warbling *Cóclulas*
 obey the mild ordinance of the flower-darting God Abandon delay
 see, the whole assembly of slender plants, pointing to the bower with fingers
 of young leaves agitated by the gale, make signals for thy departure. Ask
 those two round hillocks, which receive pure dew-drops from the garland
 playing on thy neck, and the buds, on whose top start aloft with the
 thought of thy darling, ask, and they will tell, that thy soul is intent on
 the warfare of love advance, servid warriour, advance with alacrity,
 while the sound of thy tinkling waist-bells shall represent martial musick
 Lead with thee some favoured maid, grasp her hand with thine, whose
 fingers are long and smooth as love's arrows march, and, with the noise
 of thy bracelets, proclaim thy approach to the youth, who will own
 himself thy slave "She will come, she will exult on beholding me;
 "she will pour accents of delight, she will enfold me with eager arms,
 "she will melt with affection" Such are his thoughts at this moment;
 and thus thinking, he looks through the long avenue, he trembles;
 he rejoices, he burns, he moves from place to place, he faints,
 when he sees thee not coming, and falls in his gloomy hower. The
 night now dresses, in habiliments, fit for secrecy, the many damsels,
 * who

* who hasten to their places of assignation she sets off with blackness their
 * beautiful eyes, fixes dark *Tamala*-leaves behind their ears, decks their
 * locks with the deep azure of water-lilies, and sprinkles musk on their
 * panting bosoms. The nocturnal sky, black as the touchstone, tries now
 * the gold of their affection, and is marked with rich lines from the flashes of
 * their beauty, to which they surpass the brightest *Cashmirians*."

RA'DHA', thus incited, tripped through the forest; but shame overpowered her, when, by the light of innumerable gems, on the arms, the feet, and the neck of her beloved, she saw him at the door of his flowery mansion. Then her damsel again addressed her with ardent exultation.

" Enter, sweet RA'DHA', the bower of HERI seek delight, O thou,
 * whose bosom laughs with the foretaste of happiness. Enter, sweet RA'DHA',
 * the bower graced with a bed of *Ajasa*-leaves seek delight, O thou, whose
 * garland leaps with joy on thy breast. Enter, sweet RA'DHA', the bower
 * illuminated with gay blossoms, seek delight, O thou whose limbs far excel
 * them in softness. Enter, O RA'DHA', the bower made cool and fragrant
 * by gales from the woods of *Malaya* seek delight, O thou, whose
 * amorous lays are softer than breezes. Enter, O RA'DHA', the bower
 * spread with leaves of twining creepers seek delight, O thou, whose
 * arms have been long inflexible. Enter, O RA'DHA', the bower, which
 * resounds with the murmurs of honey-making bees seek delight, O
 * thou, whose embrace yields more exquisite sweetness. Enter, O RA'DHA',
 * the bower attuned by the melodious band of *Coccius*. seek delight, O thou,
 * whose lips, which outshine the grains of the pomegranate, are embel-
 * lished, when thou speakest, by the brightness of thy teeth. Long has
 * he borne thee in his mind, and now, in an agony of desire, he pants

' to taste nectar from thy lip. Deign to restore thy slave, who will bend
 ' before the lotos of thy foot, and press it to his irradiated bosom; a
 ' slave, who acknowledges himself bought by thee for a single glance from
 ' thy eye, and a toss of thy disdainful eye-brow.'

She ended; and RA'DHA', with timid joy, darting her eyes on GO'VINDA, while she musically sounded the rings of her ankles and the bells of her zone, entered the mystic bower of her only beloved. There she beheld her MA'OHAVA, who delighted in her alone; who so long had grieved for her embrace; and whose countenance then glowed with excessive rapture. His heart was agitated by her sight, as the waves of the deep are affected by the lunar orb. His azure breast glittered with pearls of unblemished lustre, like the full bed of the cerulean Yamuna, interspersed with curls of white foam. From his graceful waist flowed a pale yellow robe, which resembled the golden dust of the water-lily scattered over its blue petals. His passion was inflamed by the glances of her eyes, which played like a pair of water-birds with azure plumage, that sport near a full-blown lotos on a pool in the season of dew. Bright ear-rings, like two suns, displayed in full expansion the flowers of his cheeks and lips, which glistened with the liquid radiance of smiles. His locks, interwoven with blossoms, were like a cloud variegated with moonbeams; and, on his forehead, shone a circle of odorous oil, extracted from the sandal of Maleya, like the moon just appearing on the dusky horizon, while his whole body seemed in a flame, from the blaze of unnumbered gems. Tears of transport gushed in a stream from the full eyes of RA'DHA', and their watery glances beamed on her best beloved Even shame, which before had taken its abode in their dark pupils, was itself ashamed and departed, when the fawn-eyed RA'DHA', gazed on the brightened face of KRISHNA, while she passed by the soft edge of his couch.

couch, and the bevy of his attendant nymphs, pretending to strike the gnats from their cheeks, in order to conceal their smiles, wanly retired from his bower.

Go'VINDA, seeing his beloved cheerful and serene, her lips sparkling with smiles, and her eye speaking desire, thus eagerly addressed her, while she carelessly reclined on the leafy bed strewn with soft blossoms.

' Set the lotos of thy foot on this azure bosom, and let this couch be
 ' victorious over all, who rebel against love *Give short rapture, sweet RA'D-*
 ' HA', *to NA'RA'YA'N thy adorer* I do thee homage; I press with my
 ' blooming palms thy feet, weary with so long a walk O that I were the
 ' golden ring, that plays round thy ankle! Speak but one gentle word, hid
 ' nectar drop from the bright moon of thy mouth Since the pain of
 ' absence is removed, let me thus remove the thin vest, that enviously hides
 ' thy charms. Blest should I be, if those raised globes were fixed on my bo-
 ' som, and the ardour of my passion allayed O! suffer me to quaff the li-
 ' quid bliss of those lips, restore with their water of life thy slave, who has
 ' long been lifeless, whom the fire of separation has consumed Long have
 ' these ears heco afflicted in thy absence by the notes of the *Cocila* relieve
 ' them with the sound of thy tinkling waist-hells, which yield musick almost
 ' equal to the melody of thy voice Why are those eyes half closed? Are
 ' they ashamed of seeing a youth to whom thy causeless resentment gave
 ' anguish? Oh! let affliction cease and let extasy drown the remembrance
 ' of past sorrow '

In the morning she rose disarrayed, and her eyes betrayed a night without slumber, when the yellow-robed God, who gazed on her with tran-
 port,

port, thus meditated on her charms in his heavenly mind ‘ Though her locks be diffused at random, though the lustre of her lips be faded, though her garland and zone be fallen from their enchanting stations, and though she hide their places with her hands, looking toward me with hashful silence, yet even thus disarranged, she fills me with extatick delight.’ But RA’DHA’, preparing to array herself, before the company of nymphs could see her confusion, spake thus with exultation to her obsequious lover.

‘ Peace, O son of YANU, with fingers cooler than sandal-wood, place a circlet of musick on this breast, which resembles a vase of consecrated water, crowned with fresh leaves, and fixed near a vernal bower to propitiate the God of Love Place, my darling, the glossy powder, which would make the blackest hec envious, on this eye, whose glances are keener than arrows darted by the husband of RERI. Fix, O accomplished youth, the two gems, which form part of love’s chain, in these ears, whence the antelopes of thine eyes may run downwards and sport at pleasure. Place now a fresh circle of musk, black as the lunar spots, on the moon of my forehead, and mix gay flowers on my tresses with a peacock’s feathers, in graceful order, that they may wave like the banners of CA’MA Now replace, O tender hearted, the loose ornaments of my vesture and refix the golden bells of my girdle on their destined station, which resembles those hills, where the God with five shafts, who destroyed SAM-BAB, keeps his elephant ready for battle.’ While she spake, the heart of YADAVA triumphed, and, obeying her sportful behests, he placed musky spots on her bosom and forehead, dyed her temples with radiant hues, embellished her eyes with additional blackness, decked her braided hair and her neck with fresh garlands, and tied on her wrists the loosened bracelets,

bracelets, on her ankles the beamy rings, and rouod her waist the zone of bells, and sounded with ravishing melody.

Whatever is delightful in the modes of musick, whatever is divine in meditations on VISHNU, whatever is exquisite in the sweet art of love, whatever is graceful in the fine strains of poetry, all that let the happy and wise learn from the songs of JAYADEVA, whose soul is united with the foot of NA'RA'YAN. May that HERI be your support, who expanded himself into an infinity of bright forms, when, eager to gaze with myriads of eyes on the daughter of the ocean, he displayed his great character, of the all-pervading deity, by the multiplied reflections of his divine person in the numberless gems on the many heads of the king of serpents, whom he chose for his couch; that HERI, who, removing the lucid veil from the bosom of PRDMĀ', and fixing his eyes on the delicious buds, that grew on it, diverted her attention, by declaring that, when she had chosen him as her bridegroom, near the sea of milk, the disappointed husband of PERVATI drank in despair the venom, which dyed his neck azure!

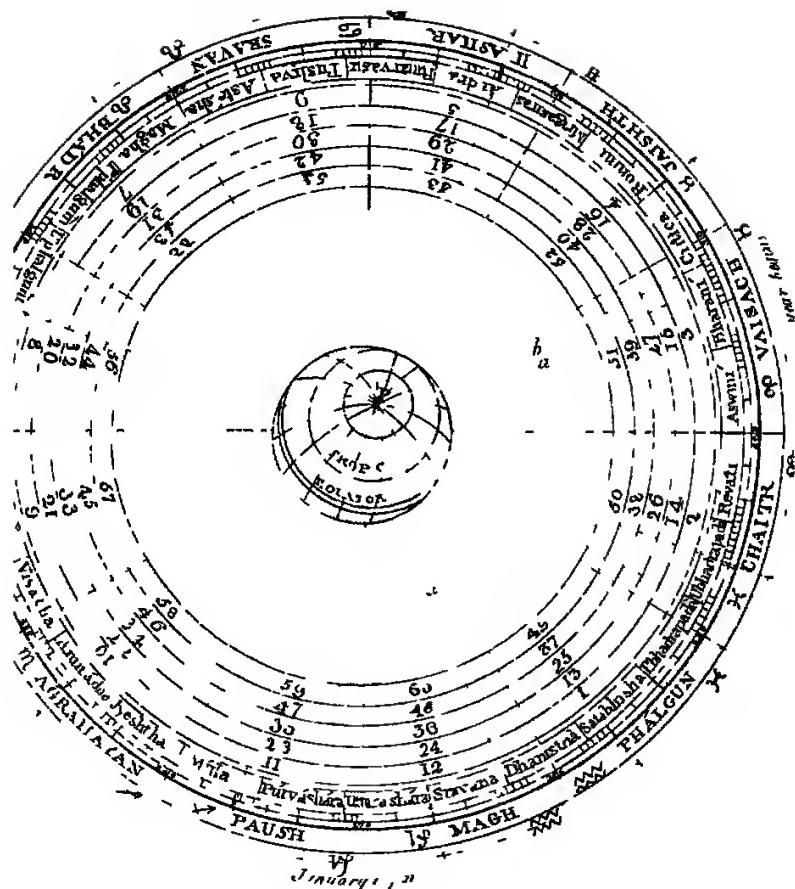
THE END.

NOTE

Note to Vol. II. page 391.

By the Translator.

A desire of translating the couplets of VARA'KAMINTRA with minute exactness, and of avoiding the *Sanskrit* word *eyes* in an English phrase, has occasioned a little inaccuracy, or at least ambiguity, in the version of two very important lines, which may easily be corrected by twice reading *dhyat* in the fifth case for *adyam* in the first so that they may thus be translated word for word "Certainly the southern road of the sun was, or began, once from "the middle of *Afghān*, the northern, from the first of *Dhamyātā*. At "present the southern road of the sun begins from the fifth of *Cercet*; and "the other from the first of *Mriga*, or *Musar*."



January, 11

IX.

INDIAN CYCLE OF SIXTY YEARS.

By SAMUEL DAVIS, ESQ.

IN the Philosophical Transactions published for 1790, there is an account given of the *Hindu* cycle of sixty*, which being in many particulars deficient, and in some erroneous, I shall endeavour to show the true nature and computation of that cycle, from the explanation which is given of it by the *Hindus* themselves.

The following two *slokas*, extracted from the last section of the *Surya Siddhanta*, enunciate the several distinctions of time in astronomical use among the *Hindus*.

आङ्कूरदैवं उथापिता० प्राज्ञानिज० गुरोवर्था०।
सोर० च सावद० चात्र माह० मानानि दैवत्या०।

क्षुर्तिर्यवशावात् सोर चाप्त्राक्ष चावलेः०।
बाह्यनित्यस्तु द्य० द्य० नालेः सुमित्राशः०।।

Brahman

* " In their current transactions, the inhabitants of the peninsula employ a mode of computation which, though not unknown in other parts of the world, is confined to these [the scutum] Vol III D d " pro r

Brâhman duvan tat ha puryan prajapatyam gurîbhâ,
 Sauran ehe savanan chandram aeshan manasi vînava
 Chaturbhîr vavahrotra saurachandtaresha savana h,
 Varhaspatyena shash tvabdan jneyan n myaishu mty us ah

and the translation of them is as follows "The *Brahma*, the *Datta*, the "*Purya*, the *Prajapatiya*, that of *Guru*, the *Saura*, the *Savana*, the *Chandra*, "the *Auscharta*, are the nine distinctions of nine Four of those distinctions are of practical use to mortals, namely, the *Saura*, the *Chandra*, "the *Nuccharta*, the *Savana*. That of *Varhaspatya* (*Guru*) is formed into "sixty years. The other distinctions occur but seldom in astronomical "practice."

Brabrea's year is that, whereof the *Calpa* is one day. The *Datta* year consists of 360 revolutions of the sun through the ecliptick. The *Purya* day is from lunation to lunation. The *Pra apati-mana* is the *manwantara*. The cycle of *Guru* or *Vribjji*, which is the subject of this paper, will be explained further on. The *Canda* is 1 year, and the *Nuccharta* sidereal year. The *Saura* and *Savar* are the same solar-sidereal year differently divided, the sun's passage through each degree of the ecliptick being accounted as a day of the first, and the time contained between sun-rise and sun-set as a day of the last, consequently, there are 360 days, or divisions,

"*It amongst the Hindus. This is a cyclic or revolving period of sixty solar years, which has a further correspondence with the years above mentioned [of *Bikrami* and *Saka*] than that of their year respectively on the first day,' c.*

in the former year, whereto, the latter year is determined, according to the astronomical rules of the best authority, as containing $365^{\frac{1}{4}} 15^{\frac{1}{2}} 31^{\frac{1}{3}} 8^{\frac{1}{4}}$ of *Hindu*, or $365^{\frac{1}{4}} 6^{\frac{1}{2}} 36' 33' 26''$ of our time

The *Savan* year may, as the *Hindus* observe, be measured by the following method, which is little more than a translation from the *Sanskrit*

Upon a large horizontal circle, note the point whereon the sun rises, at any time near the equinox, or, when his motion in declination is the most perceptible, and count the number of *Savan* days, or of his successive risings, from that time, until, having visited the two solstices, he shall be returned near to the original mark, then, repeat the operation, until he rises next after passing over that original or first-marked mark, and compute the proportion which the space, whereby he shall have fallen short of it, in the last observation but one, bears to the whole space contained between the marks, made of his two last risings, accounting that space to contain 60 *Dandas*, or one *Savan* day—the result will be the fraction of a day, and it will be the excess of the year over 365 days, or number of times that the sun will have been found to rise above the horizon during such an observation of his progress through the ecliptic. This fraction (allowing for precession) the *Surya Siddhanta* states as $0^{\frac{1}{4}} 25^{\frac{1}{2}} 31^{\frac{1}{3}} 8^{\frac{1}{4}}$, and the *Siddhanta Siromani* as $0^{\frac{1}{4}} 25^{\frac{1}{2}} 30^{\frac{1}{3}} 30^{\frac{1}{4}}$ but it is not probable, that either quantity was determined in so simple and mechanical a method alone, or without recourse to a series of observations made at distant periods.

The *Krikaspati* *manas*, of which the cycle of sixty years is composed, is thus described in the comment on the foregoing *slokas*

व्रह्मपतेर्यान् यस्यश्वराशिर्भागेऽप्ते ॥

Vribhspetermanan madby amai. sibhog. nohan

" It is his (*Vribhpati*) mean motion (*madhyama*) through one sign* "

To explain what is meant by the *madhyama*, in contradistinction to the *sigra*, motion of *Jupiter*, and the other planets, and to show that, by compounding them in eccentric circles and epicycles, the *Hindus* compute the apparent places of the planets on the principles of the *Ptolemaick* astronomi, is not the object of this paper. I shall, therefore, only desire it may be understood, that the *madhyama* of *Jupiter* answers to his mean motion in his orbit, and the amount of it computed for any particular interval, to his mean heliocentrick longitude in the *Hindu* ecliptick. The rule then for computing his *maha*, or year, of which the cycle of fifty years is formed, is evident, and it is thus given in the 55th *sutra* of the first section of the *Surya Siddhanta*

द्वादशग्रीवो राता उपां इष्टमानोदृः ।
वाणिहिं सर्वतो शुक्लं एडा न्याविजयादयः ॥

Dwadashagrina guro vata bhagana vertamanacaih
Rasibhish sahitih ludd h shashitya hi urvijayadayah

" Multiply by 12 7 pater's expired *Ukranas*, (revolutions) and (to the product, add the sign he is in, divide (the sum, by 60, the remainder,

* Correct an error in Vol. II. p. 233, in the note on the *Hindu* cycle of sixty for *digree* read *rig*

" or

" or fraction, shows his current year, counting from *Vijaya* as the first of " the series."

To apply this rule in finding the *Vrishaspatti* year, for a given time, as for the commencement of the current year of the *cali* *yug*, or when 4892 years of that era were expired, correspondent with the 10th of last *April*, we have the following data*. The revolutions, or mean motion of *Jupiter*, 364220 in 4320000 solar years, and the term expired of the *cali* *yug* 4892 years, which, for the reason given in Vol II page 244, may in this case be used to save trouble, instead of the period expired of the *Calpa* then, as 4320000 to 364220 so 4892 to $\frac{4}{5} 12^{\circ} 5' 10'' 21' 12''$ which shows *Jupiter's madhyama* or mean heliocentric longitude to be $5^{\circ} 10' 21' 12''$ after $4\frac{1}{2}$ complete revolutions through his orbit. But, as in the instance of the moon's node, (Vol II page 275) a correction of *bija* is here to be applied to *Jupiter's mean place* at the rate of 8 revolutions in the *maka* *yug* subtractive. But 8 revolutions in 4320000 years are as 1° to 1500 years, therefore, by a shorter process, the term expired of the *cali* *yug*, divided by 1500, quotes the *bija* in degrees, and $\frac{4892}{1500}=3^{\circ} 15' 41'' 48'$ is the correction subtractive, which reduces *Jupiter's mean place* to $(412^{\circ}) 5^{\circ} 10' 21' 12''$ then $412 \times 12 = 4944$, to which add 6, *Jupiter* being in the fifth sign, the sum 4950 is the number of the *Vrishaspatti* years elapsed since the beginning of the *cali* *yug*, which, divided by 60 for cycles, quotes 82 cycles expired, leaving a fraction of $\frac{1}{3}$ to find his current year, which, counted as the rule directs from *Vijaya* as the first, falls on *Dundubhi*, which is the 56th of the cycle, and, of this year, the fraction $7^{\circ} 5' 30'$ reduced at the rate of $2^{\circ} 30'$ to a month, shows $\frac{2}{25} 6^{\circ} 12'$ to have been expired on the 1st of *Vaisakha*, or the 10th of *April*,

* From Vol II page 232

for which time the computation is made; and likewise, that the next year *Rudhrividari* will commence in the ensuing solar month of *Magha*.

A *Nadya* almanack for the present year states, that, on the 1st of last *Vaisakh*, there were expired of the *Vribhaspati* cycle 55 years, 2 months, 23 days, and 10 *dandas*, and that the current year *Dundubbi* will continue until the 7th day of the solar month of *Magha*; the difference of one day and 56 *dandas*, between this and the foregoing result, is too great to be accounted for by the difference of longitude between *Nadya* and *Ujjem*, for the meridian of which latter place computations by the *Surya Siddhanta* are made, but it is of no consequence to the intended purpose of this paper.

There is another rule for computing the *Vribhaspati* year given in an astrological book named *Jyautishatva* "The *saca* years note down in two " places Multiply (one of the numbers) by 22 Add (to the product) " 4291 Divide (the sum) by 1875 The quotient add to the second " number noted down, and divide (the sum) by 60 The remainder or " fraction will show the year last expired, counting from *Prabhava* as the " first of the cycle The fraction, if any, left by the divisor 1875 may be " reduced to months, days, &c. expired of the current year"

The *saca* years expired on the 1st of last *Vaisakh*, corresponding with the expired years 4892 of the *cal yug*, were 1713 then, by the rule,

$$\frac{1713 \times 22 + 4291}{1875} = 22 \frac{22}{1875}, \text{ and, } \frac{1713 + 22}{60} = 28 \frac{43}{60}$$

which shows the last expired year of *Vribhaspati* to have been the 55th year of the cycle, named *Durmatsi*, and the fraction $\frac{22}{1875}$, when reduced, that 4 months, 19 days, and 35 *dandas* were expired of the current year *Dundubbi* when last *Vaisakh* began.

The numbers 22 and 1875 used in this computation are evidently derived from the planetary periods, as given by ARYABHATTA, which, according to VARAHAMIHIRA are, of Jupiter, 364224 mean revolutions in 4320000 solar years but 364224 revolutions of Jupiter contain 4370688 of his years, which exceed the correspondent solar years 4320000 by 50688, and those two numbers reduced to their lowest terms are 1875 and 22, or, in 1875 solar years, there is an excess of 22 *Vribhaspati* years, and hence the use of those numbers is obvious. The additive number 4892, by the Hindu astronomers termed *chheda*, adjusts the computation to the commencement of the era *saka*, which began when the 3179th year expired of the *kalayug*, and it shows that 8 years, 3 months, and 13 days were then expired of the current cycle of Jupiter, or 3 months and 13 days of the year *Sukla*, which is the third of that cycle. A computation by the *Surya Siddhanta* for the same period, with a correction of *bija*, as in the foregoing example, makes 2 months, 9 days, 56 *dandas*, and 12 *palas* to have been elapsed of that year, and that consequently there were 57 years, 9 months, 20 days, 3 *dandas*, and 12 *palas* then wanting to complete the cycle, instead of 49 years, as it is stated in the Philosophical Transactions, and, by the same rule, the year of CHRIST 1784 corresponded with the 48th and 49th of the cycle, or *Ananda* and *Racchasa*.

This mode of computation disagrees with the date of a grant of land mentioned in Vol I page 363, of the Asiatick Researches, for *saka* 939 must have ended in the 9d month of the 59d year of the *Vribhaspati* cycle, but, as the grant in question appears to have been made in the vicinity of *Bombay*, the difference may be accounted for in a manner, that will equally explain the disagreement noticed by Mr MARSDEN between his authorities and the *Banares* almanack. We learn from VARAHAMIHIRA's commentator,

mentatpr, there were some who erroneously supposed the solar and *Vribaspatis* years to be of the same length. A memorial *sûtra* known to most *Pandus*, furnishing a concise rule to find the *Vrikaspata* year, mentions astronomers in countries south of the *Nermadâ* to be in their reckoning of it ten years bebind those situated on the north side of that river, by the foregoing comparison of the date in the Asiatick Researches with a computation by the *Surya Siddhanta*, the difference is found to be 2 years, and the *Banares* almanack for the present year mentions, that south of the *Nermada*, the 45th year of the cycle named *Virodbacrit*, was accounted to begin in last *Magh*, in which month, it is further observed, began at *Banares* the present year *Dundubhi*, which is the 56th of the cycle. This difference then increases, and from the *saka* year 939, when it was 2 years, it had to last *Magh* become 11 years. Now, in the interval of 773 solar years between those points of time, the *Vribaspata* reckoning must have gained upon the solar reckoning about 9 years, which, added to the former difference of 2 years, is equal to the difference now actually noticed in the *Banares* almanack, and we may thence conclude, that the erroneous notion mentioned and refuted by *VARA'HAMHINIR*'s commentator, still prevails to the south of the *Nermada*, from which part of India Mr MARSHALL's information on the subject seems to have been originally procured. But there is no reason to suppose, that the *Vribaspata* year is any where considered as "commencing on the same day with the years of *VICRAMA DITYA* and *SALIVAHAN*," nor is it possible that it should, because the latter, which is solar-sidereal, commences with the sun's entrance of *Aries* in the Hindu ecliptick, and the former, which is luni-solar, with the preceding new moon in the month of *Chaitra*.

It may not be deemed superfluous here to add *VARA'HAMHINIR*'s explanation of *Jupiter*'s two cycles of 12 and 60, more especially as he cites certain

certain particulars with a reference to the position of the colures as described by PARA'SARA, and explained in the preceding volume of this work.

Text.—“*Of Vribaspati's 12 years.* The name of the year is determined from the *Nacshatra*, in which *Vribaspati* rises and sets (heliacally) and they follow in the order of the lunar months.”

Commentary.—“But if, as it may happen, he should set in one and rise in another *Nacshatra*, which of the two, it may be asked, would give name to his year? Suppose him, for example, to set in *Rohini* and to rise in *Mrigafiras*—I answer, that in such a case, the name must be made to agree with the order of the months, or, it must be that name, which in the regular series follows the name of the year expired. According to SASIPUTRA and others, the *Nacshatra* in which Jupiter rises gives the name to his year. CASTAPA says, the names of the *Samvatshra Yuga*, and the years of the cycle of sixty, are determined from the *Nacshatra* in which he rises, and GARGA gives the same account. Some say, that *Cartic*, the first year of the cycle of 12, begins on the first day of the month of *Chaitra*, whatever may be the *Nacshatra* which Jupiter is then in, and that *Prabhava* likewise, the first year of the cycle of sixty, begins in the same manner, and some say that Jupiter's years are coincident with the solar years, but that cannot be true, because the solar year exceeds in duration the *Vribaspati* year,” &c

Text.—“The years beginning with *Cartic* commence with the *Nacshatra* *Critica*, and to each year there appertain two *Nacshatras*, except the 5th, 11th, and 12th years, to each of which appertain three *Nacshatras*.”

Commentary — “The years and their corresponding *Nacshatras* are,”

YEARS.	NACSHATRAS.
Cartic	Critica, Röhini
A'grahayan.	Mrigafiras, A'rdrâ.
Paušh	Punarvaſu, Puṣhya.
Mágh.	Aſteſha, Maḡha
Phálgun.	Purvap'halguni, Uttarap'halguni, Haſta.
Chair	Chitra, Swáti
Vaiſāch.	Viſācha, Anuradha
Jyaſthu.	Jyéſht'hâ, Mûla
Aſhar	Purvashâra, Uttarashâra
Srávan	Sravaṇa, Dhanish'tha
Bhádr	Satabhiſha, Purvahhadrapadâ, Uttarabhadrapada
A'ſwin	Revati, Aſwini, Bharani

“ Some, on GARGA's authority, hold it to be the 10th instead of the 12th year
to which three *Nacshatras* appertain. GARGA's arrangement of them is thus ”

Phalgun	Purvap'halguni, Uttarap'halguni, Haſta
Srávan.	Sravaṇa, Dhanish'tha, Satabhiſha.
Bhádr	Purvahhadrapadâ, Luuarabhadrapada, Revati
Aſwin	Aſwini, Bharani

“ PARASERA's rule states, that when *Vishapatti* is in *Critica* and
“ *Rohini*, the year is - - - had.
“ *Mrigafiras*, *A'rdrâ* - - - - had
“ *Punarvaſu*, *Puṣhya* - - - - good
“ *Aſteſha*, *Maḡha* - - - - had

“ <i>Purvap'balguni, Uttarap'balguni, Hasta</i>	-	neutral.
“ <i>Chitrad, Swati</i>	-	good.
“ <i>Visacba, Anurádhá</i>	-	bad
“ <i>Jyeshtha, Mula</i>	-	bad.
“ <i>Purvañbára, Uttarañbara</i>	-	good
“ <i>Sravana, Dhamñba, Satabhiña</i>	-	good.
“ <i>Purvabhadrapada, Uttarabhadrapadda, Revati</i>	-	good
“ <i>Añvini, Bharani</i>	-	good

“ On those authorities, therefore, it is the 10th and not the 12th year
 “ to which three *Nacshatras* appertain ”

Text — “ Of the Vrihaspati cycle of sixty years Multiply the expired
 “ years of *Saca* by 11, and the product by 4 Add the *ghepa* 8589.
 “ Divide the sum by 3750*, and the quotient add to the years of *Saca*
 “ Divide the sum by 60 to find the year, and by 12 to find the *yuga*
 “ The *Devas* who preside over the twelve years of the *yuga* are,

“ Vishnu,	<i>The Pittis.</i>
“ Surya,	Vis'wa
“ Indra,	Soma
“ Agni,	Indragnu
“ Twashita,	A'ñwina
“ Ahirvadna,	Bhaga "

Commentary — “ It is in the *Sómasambita* that the presiding *Devas*

* These numbers, 11×4 and 3750 are in the same ratio as those used in the foregoing example from the *Jyantiflores* the two rules therefore are the same, with an inconsiderable difference in the *ghepa*.

" are thus stated. In the cycle of sixty are contained five cycles of twelve, " which five eyeles, or *yugas*, are named

" <i>Samvatjara</i> ,	over which presides	-	-	<i>Agni.</i>
" <i>Parvatjara</i>	-	-	-	<i>Aree.</i>
" <i>Idavatjara</i>	-	-	-	<i>Chandra.</i>
" <i>Anuvatjara</i>	-	-	-	<i>Brabma.</i>
" <i>Udravatjara</i>	-	-	-	<i>Srua.</i>

Text.—" The first year of the cycle of sixty, named *Prabhava*, begins, " when in the month of *Magha*, *Vribapati* rises in the first degree of the " *Nacshatra Dhanishtha*, and the quality of that year is always good."

Commentary—" The month of *Magh* here meant is the lunar *Magh*; " it cannot be the solar *Magh*, because when *Vribapati* rises in $9^{\circ} 23' 20'$ " *Surya* must be in $10^{\circ} 6' 12''$."

The years of the cycle and the presiding *Desties* are thus arranged by VARA'HANIHARA in six memorial couplets

BRA'HMA	VAISHNAVA.	SAIVA
Prabhava,	Sarvajit,	Plavanga,
Vihava,	Sarvadharini,	Cilaea,
Sucla,	Virodhi,	Saumya,
Pramoda,	Vicrita,	Sadharaana,
5 Prajapati,	25 Chara,	45 Virodhaerit,

* Because the beginning of *Dhanishtha* is west of the end of *Magh* only $6^{\circ} 40'$, at which distance from the sun, *Jupiter* would not rise heliacally, or be seen disengaged from his rays, but the lunar *Magh* might extend to near the end of the solar *Pridipam*. Should the moon, however, change very soon after the sun's entrance of the Hindu sign *Capricorn*, coincident with *Magh*, then, neither the solar nor the lunar month of that name would agree with the terms of the proposition, which is no instance of an imperfect astronomy.

BAA'NMA.	VAISHNAVA	SAIVA.
Angira,	Nandana,	Paridhávi,
Srimuc'ha,	Vijaya,	Pramádi,
Bhává,	Jaya,	A'nanda,
Yuvá,	Manmat'ha,	Racshasa,
10 Dhátá,	30 Durmuc'ha,	50 Anala,
Ifwara,	Hémalamya,	Pingala,
Bahudhanya,	Vilamva,	Cálayuṣta,
Pramat'hi,	Vicari,	Sidhárthi,
Vierama,	Sarvari,	Raudra,
15 Brisya,	35 Plava,	55 Durmati,
Chitráhhantu,	Subhacrit,	Dunduhhi,
Subhánu,	Sóbhana,	Rudhiródgári,
Tárana,	Crádhí,	Raftácfsha,
Párhiva,	Viswávasi,	Crodhana,
20 Vyaya,	40. Paráhhava,	60 Chaya

It may be remarked, that, in the foregoing arrangements of the *Vribhappan* years, *Crisic* is always placed the first in the cycle of twelve, and, since it is a main principle of the *Hindu* astronomy to commence the planetary motions, which are the measures of time, from the same point of the ecliptick, it may thence be inferred, that there was a time when the *Hindu* solar year, as well as the *Vribhappan* cycle of twelve, began with the sun's arrival in, or near, the *Nacshatra Crisica*. That this year has had different beginnings is evinced by the practice of the *Chinese* and *Siamese*, who had their astronomy from *India*, and who still begin their years, probably by the rule they originally received, either from the sun's departure from the winter solstice, or from the preceding new moon, which has the same reference

ence to the winter solstice that the *Hindu* year of VICHRAṂABITYA has to the vernal equinox. The commentator on the *Surya Siddhānta* expressly says, that the authors of the books generally termed *Saṅgas*, accounted the *Deva* day to begin in the beginning of the sun's northern road now, the *Deva* day is the solar year, and the sun's northern road begins in the winter solstice, and hence it should seem, that some of those authors began the solar year exactly as the Chinese do at this time. This might moreover have been the custom in PĀRĀŚĀRA's time, for the phenomenon, which is said to mark the beginning of the *Vṛishāpēta* cycle of sixty, refers to the beginning of *Dāmśūlī*, which is precisely that point of the ecliptic through which the solstice passed when he wrote.

There are, beside these apparent changes made by the *Hindus* in their mode of commencing the year, abundant instances of alterations and corrections in their astronomy, an inquiry into which might, by fixing certain chronological data, throw considerable light on their history, and it is scarcely necessary to observe, with how much more advantage an investigation of this kind would be made with the assistance of such astronomical books, written in the *Deva* *Nāgarī* characters, as might easily be had from *Haiderabad* and *Puna*, if the English residents there would interest themselves to procure them. Copies of the astronomical rules, followed at *Bombay* and *Gujarat*, might also prove of use, if NIΛĀVŪRK^{*} was not misinformed, who says the natives there begin the year with the month of *Cartic*, which has an evident reference to the autumnal equinox, and may perhaps be computed by the *Arpha Siddhānta*, mentioned in Vol I p. 261, as accounting the day to begin at sunset, for sunset with the *Devas* is the

* " Le nouvel an chez les Indiens à Guzerat, que ceux de Bombay suivent aussi, vient du mois Kartig, mais à Scindia le célèbre au mois Ajar." Tom 2, p 21

fun's departure from the autumnal equinox, and it is invariably observed in their astronomy to account the different measures of time as having begun originally from the same instant.

But of all places in *India*, to which *Europeans* might have access, *Ujjain* is probably the best furnished with mathematical and astronomical productions, for it was formerly a principal seminary of those sciences, and is still referred to as the first meridian. Almost any trouble and expense would be compensated by the possession of the three copious treatises on Algebra, from which *BHĀSKARA* declares he extracted his *Bija Ganita*, and which in this part of *India* are supposed to be entirely lost. But the principal object of the proposed inquiry would be, to trace as much as possible of that gradual progress, whereby the *Hindu* astronomy has arrived at its present state of comparative perfection, whence might be formed more probable conjectures of its origin and antiquity than have yet appeared for, I imagine, there are few of M. *BAILLY*'s opinion that the *cali jug*, or any *yug*, had its origin, any more than our *Juhan* period, in *an actual observation*, who have considered the nature and use of those cycles, of the relative *bhaganas*, or revolutions of the planets, and the alterations* which the latter have at different times undergone, concerning which several particulars M. *BAILLY*, it must be acknowledged, had but little information[†]. What was the real position of the planets and the state of astronomy

when

* Instances in *Jupiter's* mean motion. *AZHABHATTA* gave the revolutions as 364224 in 4320000 solar years. *BHĀSKARA* in his *Sivranjan* 364226455 to 432000000 solar years. The *Surya Siddhanta* 364210 in 4320000 solar years, which latter, by the *bija* introduced since, are reduced to 364212 in the same period.

† But it is not to be inferred, that the *Hindus* did not exist as a nation, or that they made no observations of the heavens as long ago as 4890 years; all that is here meant is, that the observation ascribed to them by M. *BAILLY* does not necessarily follow from any thing that is known of their astronomy, but, on the contrary, from the nature of the subject it appears, that the *Cali jug*

when the *cakṣug* began, or 4892 years ago, will probably never be known, but the latter must certainly have undergone considerable improvement since the last quoted *flōca* of VARA'HAMIHIRA was received as a rule, for it supposes the mean motion of *Jupiter* to be to that of the sun, as 60 to some integer, apparently to 720, as 5 to 60, or as 1 to 12, without which, the beginning and successive returns of the cycle of sixty could never be denoted by the heliacal rising of *Jupiter* in *Dhanīśī'ba*, or in any constant point of the zodiac, and at a time when the mean motion of *Jupiter* was so much mistaken, it may reasonably be supposed, that the more difficult parts of astronomy were very imperfectly understood. If the ratio were as 1 to 12, which is implied by the *yuga* of twelve (for the term *yuga* means conjunction, or coincidence) then a conjunction of the sun and *Jupiter* would happen at the end of every period of twelve years in the same point of the zodiac, and the cycle of sixty might begin in the manner described. but this must long since have ceased to be the rule, or at least since the time of A'RYABHATTA, for, if the cycle be supposed to begin with the sun and *Jupiter* in *Dhanīśī'ha*, then in sixty of *Jupiter's* years that planet will again be in *Dhanīśī'ha*, but, in sixty of such years there are, by the data ascribed to A'RYABHATTA, only 59 years, 8 months, and some days of solar time, the next cycle, therefore, could not have the same beginning, because the sun would be found more than 90 degrees distant from *Jupiter's* mean place, and in 60 years more that distance would be doubled. As this disagreement with the rule could not have been unknown to VARA'HAMIHIRA, who gives the *bbaganas* from A'RYABHATTA as 364224 in 4320000 solar years, he may be supposed to have only cited what

was, like the *Julian* period, fixed by retrospective computation, which might still have happened although astronomy had originated, which is not at all improbable, in much higher antiquity

what he had learned from other treatises merely as an astrological maxim, his *Sambitī* being a treatise on *astrology* not on practical *astronomy*, and this conjecture will appear the more reasonable, when it is considered, that nations wholly inconsistent with the latter, and which must have originated in remote ages, whose science of any kind had made but small progress, are still preserved in different *sāstras*, as in the *Bhagavat*, which, treating on the system of the universe, places the moon above the sun, and the planets above the fixed stars.

To render this paper more intelligible, I have subjoined a diagram of the *Hindū* ecliptick, which may also serve to illustrate some astronomical papers in the preceding volume. Its origin is considered as distant 180 degrees in longitude from *Spica* a star, which seems to have been of great use in regulating their astronomy, and to which the *Hindū* tables of the best authority, although they differ in other particulars, agree in assigning six signs of longitude counted from the beginning of *Aśvinī* their first *Nakṣatra*. From the beginning of *Aśvinī* (according to the *Hindū* precession, now 19° 22',

Neither LE GENTIL, nor BAILEY, had any other authority for placing the origin of the *Hindū* zodiac in longitude 10° 6', at the beginning of the *calī* *yug*, than results from a computation of the precession for 3600 years, at the end of which expired term of the *calī* *yug*, it coincided with the equinox; it is certain, that the Brāhmaṇas in this part of India suppose, as their astronomy implies, a similar coincidence, together with a conjunction of the planets in the same point by their mean motions when the *calī* *yug* began, and since in the present amount of the precession, and consequently in the origin of the zodiac, as well as in many other particulars, the Brāhmaṇas of *Tiruvârur* agree with those of *Bengal*, it is not all probable, that they should have different systems. But M BAILEY thinks the *Indian* zodiac has had two origins, one of them as I describe it, the other, as he computes it for the beginning of the *calī* *yug* — it may indeed have had many origins, although there seems at present but one to be found, for it is not in the least inconsistent with the principles of the *Hindū* astronomy to suppose that, if ever an alteration took place in the mode of beginning the year, some alteration was at the same time made in the origin of the zodiac likewise. The origin of the *Chouyī* zodiac is described to be in a part of the heavens opposite to that of the *Hindūs*, for *Spica* distinguishes their constellation *Kṛiṣṇa*, which is the first of their twenty-eight lunar mansions, and since it is agreed, that both systems were originally the same, a considerable alteration, with respect to the origin of the zodiac, must necessarily have happened in one of them

but which is in reality something further distant from the vertical equinox) the ecliptick is divided into twenty-seven equal parts, or *Nacshatras*, of $13^{\circ} 20'$ each; the twenty-eighth, named *Abijit*, being formed out of the last quarter of *Uttarakshatra*, and as much of *Sravana* as is necessary to complete the moon's periodical month. The years of *Jupiter's* cycle are expressed in their order with numerals *a* is the former position of the colures, as explained in Vol. II. and *b*, *c*, mark the limits of the precession resulting from the *Hindu* method of computing it. The outer dotted circle is the *European* ecliptick, in which is noted the beginning of the *Hindu*, and likewise of the *European* year. For want of room the signs are distinguished in both with the usual characters. The two stars pointed out by the most skilful *Pandit* I have yet met with, as distinguishing *Aśvini*, are β and γ *Arctus*, which distinguish also *al ſharatan*, the first *Arabian* *menzil*, and the latter is said to be the *yoga*, whose longitude and latitude are stated certainly with great incorrectness, as 8° and 10° north, but the error, if it be not owing to transcribers, is inexplicable.

The solar months, it may be observed, correspond in name with the like number of *Nacshatras*: this is ascribed to the months having been originally lunar, and their names derived from the *Nacshatras*, in which the moon, departing from a particular point, was observed to be at the full, for, although the full moon did not always happen in those particular *Nacshatras*, yet the deviation never exceeded the preceding or the succeeding *Nacshatra*, and whether it fell in *Hasta*, *Chitra*, or *Swati*, still that month was named *Chaitra*, and so of the rest. This is the explanation of the month given by *NRIS̄NHA*, who in the same manner explains *Jupiter's* cycle of twelve years, the names of which could not always correspond with those of the *Nacshatras*, in which he rose heliacally.

Of

Of the *Hindu* method of intercalating the lunar month, M. BAILEY conceived a right idea from what P. DU CHAMP had said on the subject; but he has omitted to mention a curious circumstance consequent to it, which is, that sometimes there happen *two* intercalary months in the same year, or, to be more precise, *two* lunar months are named *twice* over thus, as was actually the case in 1603 *Saka*, there may be two lunar *Aśvinas* and two *Chauras*; but then some one intervening month, as *Agrabayaṇ*, would be omitted, because the change of the moon would not happen at all during the solar month of that name. During the present position of the sun's apsis, this *cīcīṣa* (cīshaya?) or discarded month, is limited to *Agrabayaṇ*, *Paus* or *Magh*, those being the three shortest solar months, and, by the *Hindu* computation, the discarded month will again fall on *Agrabayaṇ* in 1744 *Saka*.

Bbagalpur, 1 Dec. 1791

X.

*An Account of the Method of catching Wild ELEPHANTS
at TIPURA.*

By JOHN CORSE, Esq

IN the month of November, when the weather has become cool, and the swamps and marshes, formed by the rains in the five preceding months, are lessened, and some of them dried up, a number of people are employed to go in quest of elephants.

At this season the males come from the recesses of the forest into the borders and outskirts thereof, whence they make nocturnal excursions into the plains in search of food, and where they often destroy the labours of the husbandman, by devouring and trampling down the rice, sugar canes, &c that they meet with A herd or drove of elephants, from what I can learn, has never been seen to leave the woods some of the largest males often stray to a considerable distance, but the young ones always remain in the forest under the protection of the *Palmai*, or leader of the heard, and of the larger elephants The *Goondahs*, or large males, come out singly, or in small parties, sometimes in the morning, but commonly in the evening, and they continue to feed all night upon the long grass, that grows amidst the swamps and marshes, and of which they are extremely fond As often, however, as they have an opportunity, they commit depredations on the rice fields, sugar canes, and plantain trees, that are near, which oblige the farmers to keep regular watch, under a small cover, erected on the tops of a few long bamboos, about 14. feet from the ground and this precaution is necessary

necessary to protect them from the tigers, with which this province abounds. From this lofty station the alarm is soon communicated from one watchman to another and the neighbouring villages, by means of a rattle with which each is provided. With their shouts and cries, and noise of the rattles, the elephants are generally scared and retire. It sometimes however happens that the males advance even to the villages, overturn the houses, and kill those who unfortunately come in their way, unless they have had time to light a number of fires: this element seems to be the most dreaded by wild elephants, and a few lighted wisps of straw or dried grass seldom fail to stop their progress. To secure one of the males a very different method is employed from that which is taken to secure a herd: the former is taken by *Koomkees*, or female elephants trained for the purpose, whereas the latter is driven into a strong enclosure called a *Keddah*.

As the hunters know the places where the elephants come out to feed, they advance towards them in the evening with four *Koomkees*, which is the number of which each hunting party consists: when the nights are dark, and these are the most favourable for their purpose, the male elephants are discovered by the noise they make in cleaning their food, by whisking and striking it against their fore-legs, and by moon-light they can see them distinctly at some distance.

As soon as they have determined on the *Goondah* they mean to secure, three of the *Koomkees* are conducted silently and slowly by their *Mahotes* (drivers) at a moderate distance from each other, near to the place where he is feeding, the *Koomkees* advance very cautiously, feeding as they go along, and appear like wild elephants that had strayed from the jungle. When the male perceives them approaching, if he takes the alarm and is viciously inclined,

inclined, he beats the ground with his trunk and makes a noise, showing evident marks of his displeasure, and that he will not allow them to approach nearer, and if they persist, he will immediately attack and gore them with his tusks for which reason they take care to retreat in good time. But should he be amorously disposed, which is generally the case, (as these males are supposed to be driven from the herd at a particular period by their seniors, to prevent their having connection with the females of that herd) he allows the females to approach, and sometimes even advances to meet them

When from these appearances, the *Mahotes* judge that he will become their prize, they conduct two of the females, one on each side close to him, and make them advance backwards, and press gently with their posteriors against his neck and shoulders the 3d female then comes up and places herself directly across his tail in this situation, so far from suspecting any design against his liberty, he begins to toy with the females and caress them with his trunk While thus engaged, the 4th female is brought near, with ropes and proper assistants, who immediately get under the belly of the 3d female, and put a slight cord (the *Chilkah*) round his hind legs, should he move, it is easily broken, in which case, if he takes no notice of this slight confinement, nor appears suspicious of what was going forward, the hunters then proceed to tie his legs with a strong cord (called *Bunda*) which is passed alternately, by means of a forked stick and a kind of hook, from one leg to the other forming the figure of 8, and as these ropes are short, for the convenience of being more readily put around his legs, 6 or 8 are generally employed, and they are made fast by another cord, (the *Dagbearee*) which is passed a few turns perpendicularly between his legs, where the folds of the *Bundahs* intersect each other. A strong cable (the *Phand*)

with

with a running noose, 60 cubits long, is next put round each hind leg immediately above the *Bundahs*, and again, above them, 6 or 8 additional *Bundahs*, according to the size of the elephant, are made fast, in the same manner as the others were. The putting on these ropes generally takes up about 20 minutes, during which the utmost silence is observed, and the *Mahotes*, who keep flat upon the necks of the females, are covered with dark coloured cloths, which serve to keep them warm, and at the same time do not attract the notice of the elephant. While the people are busily employed in tying the legs of the *Goondah*, he caresses sometimes one, and sometimes another of the seducers, (*Kootnee*) examining their beauties and toying with different parts, by which his desires are excited and his attention diverted from the bunters, and in these amorous dalliances he is indulged by the females. But if his passions should be so roused, before his legs are properly secured, as to induce him to attempt leaping on one of the females, the *Mahote*, to ensure his own safety and prevent him gratifying his desires any further, makes the female run away, and at the same time, by raising his voice and making a noise, he deters the *Goondah* from pursuing. This however happens very seldom, for he is so secured by the pressure of a *Koomhee* on each side and one behind, that he can hardly turn himself, or see any of the people, who always keep snug under the belly of the third female, that stands across his tail, and which serves both to keep him steady and to prevent his kicking any of the people, who are employed in securing him, but in general he is so much taken up with his decoys, as to attend very little to any thing else. In case of accidents, however, should the *Goondah* break loose, the people upon the first alarm can always mount on the backs of the tame elephants, by a rope that hangs ready for the purpose, and thus get out of his reach. When his hind legs are properly secured, they leave him to himself, and retire to a small distance as soon

as the *Koomkees* leave him, he attempts to follow, but finding his legs tied, he is roused to a proper sense of his situation, and retreats toward the jungle, the *Mahotes* follow at a moderate distance from him on the tame elephants, accompanied by a number of people that had been previously sent for, and who, as soon as the *Goondah* passes near a stout tree, make a few turns of the *Phands*, or long cables that are trailing behind him, around its trunk, his progress being thus stopped, he becomes furious and exerts his utmost force to disengage himself, nor will he then allow any of the *Koomkees* to come near him, but is outrageous for sometime, falling down and goring the earth with his tusks. If by these exertions the *Phands* are once broken, which sometimes is effected, and he escapes into the thick jungle, the *Mahotes* dare not advance for fear of the other wild elephants, and are therefore obliged to leave him to his fate, and in this hampered situation, it is said, he is even ungenerously attacked by the other wild elephants. As the cables are very strong and seldom give way, when he has exhausted himself by his exertions, the *Koomkees* are again brought near and take their former positions, viz one on each side and the other behind. After getting him nearer the tree, the people carry the ends of the long cables around his legs, then back and about the trunk of the tree, making, if they can, two or three turns, so as to prevent even the possibility of his escape. It would be almost impossible to secure an elephant in any other manner, as he would tear up any stake, that could at the time be driven into the ground, and even the noise of doing it would frighten the elephant for these reasons as far as I can learn, nothing less than a strong tree is ever trusted to by the hunters. For still farther security, as well as to confine him from moving to either side, his fore-legs are tied exactly in the same manner as the hind-legs were, and the *Phands* are made fast one on each side, to trees or stakes driven deep into the earth. During the process of

tying both the hind and fore-legs, the fourth *Koomker* gives assistance where necessary, and the people employed cautiously avoid going within reach of his trunk, and when he attempts to seize them, they retreat to the opposite side of the *Koomkees*, and get on them, if necessary, by means of the rope above mentioned, which hangs ready for them to lay hold of. Although, by these means, he is perfectly secured and cannot escape, yet as it would be both unsafe and inconvenient to allow him to remain in the verge of the jungle, a number of additional ropes are afterwards put on, as shall be mentioned, for the purpose of conducting him to a proper station. When the *Goondah* has become more settled, and eat a little food, with which he is supplied, as soon as he is taken, the *Koomkees* are again brought near, and a strong rope (*Phara*) is then put twice round his body, close to his fore-legs like a girth, and tied behind his shoulder, then the long end is carried back close to his rump and there fastened, after a couple of turns more have been made round his body. Another cord is next fastened to the *Phara* and from thence carried under his tail like a crupper (*dooblah*) and brought forward and fastened by a turn or two, to each of the *Pharas* or girths, by which the whole is connected, and each turn of these cords serves to keep the rest in their places. After this a strong rope (the *Tboman*) is put round his buttocks and made fast on each side to the girth and crupper, so as to confine the motion of his thighs and prevent his taking a full step. These smaller ropes being properly adjusted, a couple of large cables (the *Dools*) with running nooses are put around his neck, and after being drawn moderately tight, the nooses are secured from running closer, and then tied to the ropes on each side forming the girth and crupper already mentioned, and thus all these ropes are connected and kept in their proper places, without any risk of the nooses of the *Dools* becoming tight, so as to endanger the life of the elephant in his exertions to free himself. The ends of these cables are
made

made fast to two *Koomkees*, one on each side of the *Goondah*, by a couple of turns round the belly, close to the shoulder, like a girth, where a turn is made, and it is then carried across the chest and fastened to the girth on the opposite side. Every thing being now ready, and a passage cleared from the jungle, all the ropes are taken from his legs, and only the *Tooman* remains round his buttocks to confine the motion of his hind legs. The *Koomkees* pull him forward by the *Dools*, and the people from behind urge him on. Instead of advancing in the direction they wish, he attempts to retreat farther into the jungle, he exerts all his force, falls down, and tears the earth with his tusks, screaming and groaning, and by his violent exertions often hurts and bruises himself very much, and instances happen of their surviving these violent exertions only a few hours, or at most a few days. In general, however, they soon become reconciled to their fate, will eat immediately after they are taken, and, if necessary, may be conducted from the verge of the jungle as soon as a passage is cleared. When the elephant is brought to his proper station and made fast, he is treated with a mixture of severity and gentleness, and in a few months (if docile) he becomes tractable and appears perfectly reconciled to his fate. It appears somewhat extraordinary, that though the *Goondah* uses his utmost force to disengage himself when taken, and would kill any person coming within his reach, yet he never or at least seldom attempts to hurt the females that have ensnared him, but on the contrary seems pleased (as often as they are brought near, in order to adjust his harnessing, or move and slacken those ropes which gall him) soothed and comforted by them, as it were, for the loss of his liberty. All the elephants, soon after they are taken, are led out occasionally for exercise by the *Koomkees*, which attend for that purpose.

Having now related, partly from my own knowledge and partly from
G g 2 comparing

comparing the accounts given by different people employed in this business, the manner in which the male elephants, called *Goondahs*, are secured, I shall next entirely from my own knowledge, describe the methods I have seen employed for securing a herd of wild elephants. Female elephants are never taken singly, but always in the herd, which consists of young and old of both sexes. This noble, docile, and useful animal, seems naturally of a social disposition, as a herd in general consists of from about 40 to 100, and is conducted under the direction of one of the oldest and largest females, called the *Palmar*, and one of the largest males. When a herd is discovered, about 500 people are employed to surround it, who divide themselves into small parties, called *Chokeys*, consisting generally of one *Mahote* and two *Coolies*, at the distance of twenty or thirty yards from each other, and form an irregular circle in which the elephants are enclosed. Each party lights a fire and clears a footpath to the station that is next him, by which a regular communication is soon formed through the whole circumference from one to the other. By this path reinforcements can immediately be brought to any place where an alarm is given and it is also necessary for the superintendents, who are always going round, to see that the people are alert upon their posts. The first circle (the *Dawhee*) being thus formed, the remaining part of the day and night is spent in keeping watch by turns, or in cooking for themselves and companions. Early next morning, one man is detached from each station, to form another circle in that direction, where they wish the elephants to advance. When it is finished, the people, stationed nearest to the new circle, put out their fires and file off to the right and left, to form the advanced party, thus leaving an opening for the herd to advance through, and by this movement, both the old and new circle are joined and form an oblong. The people from behind now begin shouting and making a noise with their rattles, *tomtoms*, &c. to cause

the

the elephants to advance, and as soon as they are got within the new circle, the people close up, take their proper stations, and pass the remaining part of the day and night as before. In the morning the same process is repeated, and in this manner the herd advances slowly in that direction, where they find themselves least incommoded by the noise and clamour of the hunters, feeding, as they go along, upon branches of trees, leaves of bamboos, &c which come in their way. If they suspected any snare, they could easily break through the circle, but this inoffensive animal, going merely in quest of food, and not seeing any of the people who surround him, and who are concealed by the thick jungle, advances without suspicion, and appears only to avoid being pestered by their noise and din. As fire is the thing elephants seem most afraid of in their wild state, and will seldom venture near it, the hunters always have a number of fires lighted, and particularly at night, to prevent the elephants coming too near, as well as to cook their viands and keep them warm. The sentinels supply these fires with fuel, especially green bamboos, which are generally at hand, and which, by the crackling and loud report they make, together with the noise of the watchmen, deter the elephants from coming near, so that the herd generally remains at a distance near the centre of the circle. Should they at any time advance, the alarm is given, and all the people immediately make a noise and use their rattles, to make them keep at a greater distance. In this manner they are gradually brought to the *Keddah*, or place where they are to be secured. As the natives are extremely slow in their operations, they seldom bring the herd above one circle in a day, except on an emergency, when they exert themselves and advance two circles. They have no tents or covering but the thick woods, which, during the day, keep off the rays of the sun, and at night they sleep by the fires they have lighted, upon mats spread on the ground, wrapt up in a piece of coarse cloth. The season is then so

mild

mild that the people continue very healthy, and an accident seldom happens except to stragglers about the outskirts of the wood, who are sometimes, though very rarely, carried off by tigers. The *Keddah*, or place where the herd is to be secured, is differently constructed in different places, here it consists of three enclosures communicating with each other by means of narrow openings or gateways. The outer enclosure, or the one next to the place, where the elephants are to enter, is the largest, the middle one is generally, though not always, the next in size, and the third or furthermost is the smallest these proportions, however, are not always adhered to in the making of a *Keddah*, nor indeed does there appear to me any reason for making three enclosures; but as my intentions are merely to relate facts, I shall proceed to observe, that when in the third or last enclosure, the elephants are then only deemed secure here they are kept six or eight days, and are regularly, though scantily, fed from a scaffold on the outside, close to the entrance of an outlet called the *Roomee*, which is about sixty feet long, and very narrow, and through which the elephants are to be taken out one by one In many places this mode is not adopted, for as soon as the herd has been surrounded by a strong palisade, *Koomkees* are sent in with proper people, who tie them on the spot, in the same manner as was mentioned above of the *Goondahs*, or male elephants, that are taken singly. These enclosures are all pretty strong, but the third is the strongest, nor are the elephants deemed secure, as already observed, till they have entered it. This enclosure has, like the other two, a pretty deep ditch on the inside, and, upon the bank of earth, that is thrown up from the excavation, a row of strong palisades of middle-sized trees is planted, strengthened with cross bars, which are tied to them about the distance of fourteen inches from each other; and these are supported on the outside by strong posts like buttresses, having one end sunk in the earth and the other pressing against the cross bars to which they are fastened When

the herd is brought near to the first enclosure, or *Baigcote*, which has two gateways towards the jungle, from which the elephants are to advance, (these as well as the other gateways are disguised with branches of trees and bamboos stuck to the ground, so as to give them the appearance of a natural jungle) the greatest difficulty is to get the herd to enter the first or outer enclosure, for notwithstanding the precautions taken to disguise both the entries as well as the palisade which surrounds this enclosure, the *Palmas*, or leader now appears to suspect some snare, from the difficulty and hesitation with which in general she pusses into it, but, as soon as she enters, the whole herd implicitly follows. Immediately, when they are all passed the gateway, fires are lighted round the greatest part of the enclosure, and particularly at the entries, to prevent the elephants from returning. The hunters from without then make a terrible noise by shouting, beating of *tomtoms*, (a kind of drum) firing blunt cartridges, &c to urge the herd on to the next enclosure. The elephants, finding themselves ensnared, scream and make a noise, but, seeing no opening except the entrance to the next enclosure, and which they at first generally avoid, they return to the place through which they lately passed, thinking perhaps to escape, but now find it strongly barreled, and, as there is no ditch at this place, the hunters, to prevent their coming near and forcing their way, keep a line of fire constantly burning all along where the ditch is interrupted, and supply it with fuel from the top of the palisade, and the people from without make a noise, shouting and hallooing to drive them away. Whenever they turn, they find themselves opposed by burning fires or bundles of reeds, and dried grass, which are thrust through the opening of the palisades, except towards the entrance of the second enclosure or *Doobrazecote*. After traversing the *Baigcote* for some time, and finding no chance of escaping but through the gateway into the next enclosure, the leader enters, and the rest follow the gate

is instantly shut by people, who are stationed on a small scaffold immediately above it, and strongly barricaded, fires are lighted, and the same discordant din made and continued, till the herd has passed through another gateway into the last enclosure, or *Rajecote*, the gate of which is secured in the same manner as the former was. The elephants, being now completely surrounded on all sides, and perceiving no outlet through which they can escape, appear desperate, and in their fury advance frequently to the ditch, in order to break down the palisade, inflating their trunks, screaming louder and shriller than any trumpet, sometimes grumbling like the hollow murmur of distant thunder, but, wherever they make an attack, they are opposed by lighted fires, and by the noise and triumphant shouts of the hunters. As they must remain some time in this enclosure, care is always taken to have part of the ditch filled with water, which is supplied by a small stream, either natural or conducted through an artificial channel from some neighbouring reservoir. The elephants have recourse to this water to quench their thirst and cool themselves after their fatigues, by sucking the water into their trunks, and then squirting it over every part of their bodies. While they remain in this enclosure, they continue sulky, and seem to meditate their escape, but the hunters build huts, and form an encampment, as it were around them, close to the palisade, watchmen are placed, and every precaution used, to prevent their breaking through. This they would soon effect, if left to themselves, notwithstanding the palisade is made of very strong stakes sunk into the earth on the outside of the ditch, and strengthened by cross bars and buttresses as already mentioned.

When the herd has continued a few days in the *Keddah*, the doors of the *Roomee* is opened, into which some one of the elephants is enticed to enter, by having food thrown first before, and then gradually further on into the

the passage, till the elephant has advanced far enough to admit of the gate's being shut. Above this wicker gate, or door, two men are stationed on a small scaffold, who throw down the food. When the elephant has passed beyond the door, they give the signal to a man, who, from without, shuts it by pulling a string, and they secure it by throwing two bars, that stand perpendicular on each side, the one across the other thus X, forming the figure of St ANDREW's Cross, and then two similar bars are thrown across each other behind the door next to the *Keddeeb*, so that the door is in the centre. For farther security, horizontal bars are pushed across the *Rooomee*, through the openings of the palisades, both before and behind those crosses, to prevent the possibility of the door's being broken. The *Rooomee* is so narrow, that a large elephant cannot turn in it, but, as soon as he hears the noise that is made in shutting the gate, he retreats backwards, and endeavours to force it. Being now secured in the manner already noticed, his efforts are unavailing. Finding his retreat thus cut off, he advances, and exerts his utmost force to break down the bars, which were previously put across a little farther on in the outlet, by running against them, screaming and roaring, and battering them, like a ram, by repeated blows of his head, retreating and advancing with the utmost fury. In his rage, he rises and leaps upon the bars with his fore-feet, and strives to break them down with his huge weight. In February, 1788, a large female elephant dropt down dead in the *Rooomee*, from the violent exertions she made. When the elephant is somewhat fatigued by these exertions, strong ropes*, with running nooses, are placed in the outlet by the hunters, and as soon as he puts a foot within the noose, it is immediately drawn tight, and fastened to the palisades. When all his feet have been made pretty fast, two men place themselves behind some bars, that run

* These are of the same form and size nearly as the *Bhands*, but much shorter in pro-

across the *Roomee* to prevent his kicking them, and with great caution tie his hind-legs together, by passing a cord alternately from the one to the other, like the figure 8, and then fastening these turns as above described After this, the *Pbarab*, *Dools*, &c are put on in succession, in the same manner as on the *Goondab*, only that here the people are in greater security While these ropes are making fast, the other hunters are careful not to go too near, but keep on the outside of the palisade, and divert his attention, as much as they can, from those employed in fastening them, by supplying him with grass, and sometimes with plantain-leaves and sugar-canæ, of which he is remarkable fond, by presenting a stick, giving him hopes of catching it, or by gently striking or tickling his proboscis He frequently, however, seizes the ropes with his trunk, and endeavours to break them, particularly those with which his feet are tied, and sometimes tries to bite them through with his grinders, (as he has no incisors, or front teeth,) but the hunters then goad him with sharpened bamboos, or light spears, so as to make him quit his hold Those who are employed in putting the ropes around his body, and over his head, stand above him, on a small kind of platform, consisting of a few bars run across through the openings of the palisades, and, as an elephant cannot see any thing that is above, and rather behind his head, they are very little incommoded by him, although he appears to smell them, and endeavours to catch them with his trunk When the whole apparatus is properly secured, the ends of the two cables (*Dools*) which were fastened round his neck, are brought forward to the end of the *Roomee*, where two female elephants are waiting, and to them these cables are made fast When every thing is ready, the door at the end of the outlet is opened, the cross-bars are removed, and the passage left clear The ropes that tied his legs to the palisades are loosened, and, if he does not advance readily, they goad him with long poles, sharpened at the ends, or pointed with iron, and urge him on with their noise and din, and at the same time the females pull him gently forward

As soon as he has cleared the *Roomee*, his conductors separate, so that if he attempts to go to one side, he is prevented by the elephant that pulls in the opposite direction, and *vice versa*. The *Bundabs*, which tie his hind legs, though but loosely, yet prevent his going fast, and thus situated, he is conducted like an enraged bull, that has a cord fastened to his horns on each side, so that he cannot turn either to the right or left to avenge himself. In like manner is this noble animal led to the next tree, as the *Geondahs* before-mentioned were. Sometimes he becomes obstinate, and will not advance, in which case, while one of his conductors draws him forward, the other comes behind, and pushes him on. Should he lie down, she puts her snout under, and raises him up, supporting him on her knee, and with her head pushing him forward with all her strength. The hunters likewise assist, by goading him, and urging him forward by their noise and din. Sometimes they are even obliged to put lighted torches near, in order to make him advance. In conducting small elephants from the *Roomee*, only one cable and one *Koomkee* are made use of. As soon as each elephant is secured, he is left in charge of the *Mabote*, or keeper, who is appointed to attend and instruct him, and, under him, there are from two to five *Coolies*, according to the size of the elephant, in order to assist, and to supply food and water, till he becomes so tractable as to bring the former himself. These people erect a small hut immediately before him, where the *Mabote*, or one of the *Coolies*, constantly attends, supplies him with food, and soothes and caresses him by a variety of little arts. Sometimes the *Mabote* threatens, and even goads him with a long stick pointed with iron, but more generally coaxes and flatters him, scratching his head and trunk with a long bamboo, split at one end into many pieces, and driving away the flies from any sores occasioned by the hurts and bruises he got by his efforts to escape from the *Roomee*. This animal's skin is soft, considering his great size, and being extremely sensible, is easily cut or pierced, more so than the skin of most large quadrupeds. The *Mabote* likewise keeps him cool, by fanning

water all over him, and standing without the reach of his trunk In a few days he advances cautiously to his side, and strokes and pats him with his hand, speaking to him all the while in a soothing tone of voice, and in a little time he begins to know his keeper, and obey his commands By degrees, the *Mabote* becomes familiar to him, and at length gets upon his back from one of the tame elephants, and as the animal becomes more tractable, he advances gradually forward towards his head, till at last he is permitted to seat himself on his neck, from which place he afterwards regulates and directs all his motions While they are training in this manner, the tame elephants lead out the others in turn, for the sake of exercise, and likewise to ease their legs from the cords with which they are tied, and which are apt to gall them most terribly, unless they are regularly slackened and shifted. In five or six weeks the elephant becomes obedient to his keeper, his fetters are taken off by degrees, and generally, in about five or six months, he suffers himself to be conducted by the *Mabotes* from one place to another Care, however, is always taken not to let him approach his former haunts, lest a recollection of the freedom he there enjoyed should induce him again to recover his liberty Thus obedience to his conductor seems to proceed partly from a sense of generosity, as it is, in some measure, voluntary, for, whenever an elephant takes fright, or is determined to run away, all the exertions of the *Mabote* cannot prevent him, even by beating, or digging the pointed iron hook into his head with which he directs him On such an occasion the animal totally disregards these feeble efforts, otherwise he could shake or pull him off with his trunk, and dash him in pieces Accidents of this kind happen almost every year, especially to those *Mabotes* who attend the large *Goorabs*, but such accidents are in general owing entirely to their own carelessness and neglect It is necessary to treat the males with much greater severity than the females, to keep them in awe, but it is too common a practice among the *Mabotes*, either to be negligent in using proper measures to render their elephants docile, or to trust too much to their

good nature, before they are thoroughly acquainted with their dispositions The iron hook with which they direct them is pretty heavy, about sixteen inches long, with a straight spike advancing a little beyond the curve of the hook, so that altogether it is exactly like that which faymen or boatmen use fastened to a long pole

In this account of the process for catching and taming elephants, I have used the masculine gender, to avoid circumlocution, as both males and females are treated in the same manner The former are seldom so docile, but, like the males of other animals, are fiercer, stronger, and more untractable, than the females

Before I conclude, it may be proper to observe, that young elephants suck constantly with their mouths, and never with their trunks, as BUFFON has asserted, a conclusion he made merely from conjecture, and the great and various uses to which they are well adapted and applied by every elephant

I have seen young ones, from one day to three years old, sucking their dams, but never saw them use their trunks, except to press the breast, which, by natural instinct, they seemed to know would make the milk flow more readily The mode of connection between the male and female is now ascertained beyond the possibility of a doubt, as MR BULLER, Licut HAWKINS, and many others, saw a male copulate w th a female, after they were secured in the *Keddab*, in a manner exactly similar to the conjunction of the horse with a mare

This fact entirely overturns what has been so often related concerning the supposed delicacy of this useful animal, and a variety of other hypothesis, which are equally void of foundation As far as I know, the exact time an elephant goes with young has not yet been ascertained, but which cannot be

less than two years, as one of the elephants brought forth a young one twenty-one months and three days after she was taken. She was observed to be with young in *April or May*, 1788, and she was only taken in *January* preceding; so that it is very likely she must have had connection with the male some months before she was secured, otherwise they could not discover that she was with young, as a foetus of less than six months cannot well be supposed to make any alteration in the size or shape of so large an animal. The young one, a male, was produced *October 16th*, 1789, and appeared in every respect to have arrived at its full time. Mr HARRIS, to whom it belongs, examined its mouth a few days after it was brought forth, and found that one of its grinders on each side had partly cut the gum. It is now alive and well, and begins to chew a little grass.

I have further to remark, that one of the tusks of the young elephant made its appearance, so that we can now ascertain it to be of that species called *MacKnab*, the tusks of which are always small, and point nearly straight downwards. He was thirty-five inches high at his birth, and is now thirty-nine, so that he has grown four inches in nearly as many months. Elephants are always measured at the shoulder, for the arch or curve of the back, of young ones particularly, is considerably higher than any other part, and it is a sure sign of old age, whenever this curve is found flattened, or considerably depressed, after an elephant has once attained his full growth.

Though these remarks, as well as several others in the above relation, do not come within the plan I proposed, which was merely to describe the method of taking wild elephants in the province of *Tipura*, yet I hope they will not be deemed impertinent or superfluous, especially as several of them tend to establish some important facts in the natural history of this animal, that are not known, or not attended to, at least in any accounts that I had an opportunity of seeing.

EXPLANATION of several Words used by the Natives who catch Elephants.

Bundab, a middle-sized cord, six or eight cubits long, which is put round either the hind or fore legs of elephants, in order to secure them. From ten to twenty are employed.

Chikkab is a very slight soft cord, which the hunters at first put around the hind legs of a *Gaundab* before they begin to tie him. This is not used for *Keddab* elephants.

Dâugbearee is generally a continuation of every second *Bundab* that is put on, a few turns of which are passed round where the folds of the *Bundabs* intersect each other, in order to fasten and keep them firm. When the *Bundab* is not long enough, another cord is made use of.

Dooblab is that rope which is made fast on one side to the aftermost *Pherab*, then carried under the tail, and fastened to both the *Pherabs* on the opposite side, so as to answer the purpose of a crupper, and to keep the *Pherabs* in their places.

Dool is a large cable, about sixty cubits long, with a running noose. Two of them are put round the neck of the elephant, and fastened to the foremost *Pbarab*, or girth, one on each side, in such a manner as to prevent the nooses from being drawn too tight, or coming too far forward, and this is effectually done by the *Dooblab*, for whenever the elephant draws back, the *Dools* pull the crupper forward, which must gall him very much, and prevent him from using all the force he might otherwise exert in order to free himself.

Pband is a cable nearly the same size as the *Deal*, the noose of which is put round each leg of the *Goondabs*, and then it is tied to trees or stakes. The *Pbands* used for the *Keddab* elephants are only about thirty cubits long.

Pbrab, a rope that is put round the body of an elephant, like a girth, and to which the *Dooblab* and *Deels* are connected.

' *Teomas* is the rope that is passed round the buttocks of an elephant, and prevents his stepping out freely it is fastened to the girth and crupper, that it may not slip down.

*Tripura**, March 29th, 1790.

* The ancient name of the province was *Tripura*, or *With Three Towers*, which has been corrupted into *Tipra*, or *Tepara*.

THE PLAN
OF A
COMMONPLACE-BOOK.

By J H HARRINGTON, Esq

MR Locke esteemed his method of a Commonplace-Book "so mean a thing, as not to deserve publishing in an age full of useful inventions," but was induced to make it public at the request of a friend. This, perhaps, should have deterred me from offering a paper of the same denomination to a society instituted for inquiring into the more essential parts of literature, yet, since Mr Locke bears testimony to the utility of his method, after five-and-twenty years experience, and since whatever may tend to assist the acquisition of knowledge, cannot, I conceive, be deemed undeserving of attention, I venture to submit the plan of a Commonplace-Book, which has occurred to me, founded on Mr Locke's, but calculated, I think, to obviate an inconvenience to which his is subject.

On considering the method described and recommended by Mr Locke, it appeared to me, that the number of words having the same initial letters and following vowels, might frequently make it tedious to find a particular head, if noted in the Index by a numerical reference to the page only, and that the same cause might render it difficult to ascertain whether any particular head had been entered. For instance, *balm*, *bark*, *bard*, *bat*, *baron*,

having, with numerous other words, the same initial letter and succeeding vowel, several references to the pages pointed out by Mr. Locke's numerical index might be necessary, before any one of them, in particular, could be found, or before it could be ascertained, whether any one of them had been previously entered in the book An Index, of which the following is a specimen, would, it is presumed, remedy these apparent disadvantages How far it is free from others, will be known from experience

A short explanation of the method adopted for this book will be sufficient. One-and-twenty pages, divided each into five columns, and subdivided in the several columns for the number of the folios, the letters of the alphabet written at the head of each page, and the five vowels inserted in the columns under each letter, will form a sufficient Index, provided the letters J, Q, V, X, and Z, instead of having distinct pages appropriated to them, be written in the same pages with I, P, U, W, and Y, which they may be without inconvenience.

The *Index*, thus prepared, is ready to receive the heads of whatever subjects may be entered in the book, under their corresponding initial letters and following vowels, or under their initial letters and similar vowels, when the head is a monosyllable, and begins with a vowel It is hardly necessary to repeat Mr. Locke's remark, that " every head ought to be some important and essential word or term " If a small margin be left in each folio of the book, and the indicative word or head be written on it, it will be conspicuous, although several heads should be included in the same folio; but, until it become necessary, from there being no remaining folios wholly blank, it is advisable to appropriate a separate folio to each head, as, by this means, the several subjects entered are kept more distinct, and any additions may be made to the same head, without the trouble of reference to other

folios; for which purposes it is also advantageous to place the folio-numbers on the left pages only, leaving the right-hand pages for a continuation of the subjects entered on the left, or for remarks thereon, until it become necessary to appropriate them to new heads, in order to fill the book.

To these remarks, which may appear more than adequate to the occasion, it will be sufficient to add, that, if the heads in the Index swell, under any letter, beyond the dimensions of the single page assigned to them, (which, however, in a book of moderate size is not probable,) they may be continued on a second page, to be prepared for the same letter at the end of the original Index, for which purpose ten or twelve blank leaves may be left between the Index and the commencement of the book and lastly, that if the entries in the book, under any head, fill more than the two pages first appropriated to it, the same head may be continued in any subsequent blank folio, by obvious notes of reference at the foot of the former and top of the latter, without any new entry in the Index, which would then be unnecessarily filled.

The *Afasic Society* was instituted for enquiring into the Antiquities, Arts, Sciences, and Literature of Asia, and the humble plan of a Commonplace-Book cannot claim admission among any one of these objects it may, however, be considered as connected with all, since it may assist enquiries concerning the whole of them If it be asked, whether such a plan be within the local limits of this Society, it may be answered, that it is in its nature universal but if any particular plan be designed in Asia, such plan may, with propriety, be tendered to the *Afasic Society*, for the benefit either of publication in their Transactions, if deemed worthy of it, or of suppression, for the author's sake, if deemed useless A similar Index, with thirty pages and ten columns, according to the number of the *Nagari* consonants and

vowels, which are mostly in use, would suit a Commonplace-Book intended to comprise the whole extent of Asiatic literature.

Each of the figures A, B, C, must be considered as representing a large folio page, and it seemed unnecessary to exhibit the specimen on a more extensive scale. The numbers of the *folios* are supposed to be those of the Commonplace-Book. The names *Arabia*, *Babmen*, *Campilla*, and the rest, are given by way of example, but were not set down with any particular selection.

A

<i>Arabia</i>	<i>f.d.</i> 256	<i>c.</i>	<i>f.d.</i> 256	<i>a.</i> <i>Abuja.</i>	<i>f.d.</i> 255	<i>d.</i> <i>Afica</i>	<i>f.t.</i> 254	<i>u.</i> <i>Aguru</i>	<i>f.t.</i> 256
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B

<i>Babuon</i>	<i>f.d.</i> 255	<i>c.</i>	<i>f.d.</i> 255	<i>i.</i> <i>Birka</i>	<i>f.d.</i> 256	<i>o.</i> <i>Bornax</i>	<i>f.d.</i> 255	<i>u.</i> <i>Boscombe</i>	<i>f.d.</i> 254
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C

<i>Campilla</i>	<i>f.d.</i> 255	<i>e.</i>	<i>f.d.</i> 255	<i>h.</i> <i>Crifona</i>	<i>f.d.</i> 254	<i>o.</i> <i>Ctenophorus</i>	<i>f.d.</i> 255	<i>u.</i> <i>Cypha.</i>	<i>f.d.</i> 255
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Aso'ca. This is the true name of a charming tree, inaccurately named *Aybgem* in the *Hort. Malab* vol 5, tab. 59. It is a plant of the eighth class and first order, bearing flowers of exquisite beauty; and its fruit, which VAN RHEEDE had not seen, is a *legume*, compressed, incurved, long, pointed, with six, seven, or eight seeds. It will be described very fully in a paper intended for the Society. The Brâhmans, who adore beautiful objects, have consecrated the lovely *Ajôca* they plant it near the temples of Siva, and frequently mention a grove of it, in which RA'VAN confined the unfortunate SI'TA'. The eighth day from the new moon of *Cbatura* inclusive is called *Ajocâstami*.

CRISHNA. Properly black or dark blue, an epithet of the Hindu God, whose youthful exploits resemble those of *Apollo Nomius* he was particularly worshipped by the *Serasuna*, or people of *Mat'bura*, and ARRIAN says, that the *Suraceni* adored *Hercules*; but the deity whom he means, was *Hercules Mîsagetes*, or *Gépinat'ba*, who was the Patron of Science, according to MR BRYANT, or the 'God of Eloquence, with the Muses in his train' See *Anc Myths*. vol 2 p 74 The *Gopyab* were the Patronesses of Music and Poetry

BHU'CHAMPAC So the Hindus call a beautiful plant, described by RHEEDE, and admitted by LINNÆUS, under the names of *Kamferia retunda* The Indian appellation is very improper, as the flower has no resemblance to the *Champac*, except in the richness of its odour. *Bbú* means ground, from which the blossoms rise with a short scape, and scarce live a whole day.

CE'SARI,

CYKARI, a lion in *Sayfus*, so named from his mane; *Cýja* and *Cýjara* signifying *bear*. Etymologists will decide, whether *Cýjaris* and *Cýsar* had an affinity with those *Indian* words.

AHILYA', the celebrated comfort of an old *Indian* sage, named *Gótama*; hence it is the name of a rich *Mahráta* lady, who employs her wealth in works of devotion at *Bénáres* and *Gayà*, as well as in her own country.

BORAX, a corruption of the *Arabic* word *bírak*, or *brilliant*. It is found in its native state both in *Tíbet*, according to *GIORGJ*, and in *Népál*, according to Father *GIUSEPPE*.

CUSHA, pronounced more correctly *Cufá* with a palatal *i*, a grass held sacred by the *Brábmens* from time immemorial. It is the *Poa Cynosuroides* of Dr. *KOENIG*.

BELI, the *Belus*, probably, of the *Greeks*, for though *bdi* signify *lord* in most eastern dialects, yet in *Chaldæa*, according to *SELDEN*, it was written *Bel*, exactly as the name of the *Hindu* monarch is vulgarly pronounced.

CO'RAPHUSHPI, or, *Thief-flowered*, the corymbed *Scirpus* with awled spikes, so troublesome in our *Indian* walks.

CAMPILLA, commonly called *Camalá-guri*, a plant used by dyers, of a new genus; described by Dr. *ROXBURGH*.

BAHMAN, an old *Perſian* month, and the genius presiding over it, the name also of a celebrated king and hero.

BILVA, the *Crataeva Marmelos*, but certainly misplaced in LINNEUS. Its fruit has lately been found very beneficial in diarrhoeas.

AHREMEN. So HAFIZ writes the vowels in this name of the *evil genius*, but in some *Arabian* books it is written *Aberman*.

ARABIA. In this celebrated Peninsula the richest and most beautiful of languages was brought to perfection. The *Arabic* dictionary by GOLIB is the most elegant, the most convenient, and, in one word, the *best*, that was ever compiled in any language.

ACURU, the true name of the fragrant aloë-wood. The tree grows in *Silhet*, but has not blossomed in gardens near *Calcutta*.

XIL

THE LUNAR YEAR
OF THE
HINDUS.

BY THE PRESIDENT

HAVING lately met by accident with a wonderfully curious tract of the learned and celebrated *Ragbunandana*, containing a full account of all the rites and ceremonies in the lunar year, I twice perused it with eagerness, and present the Society with a correct outline of it, in the form of a calendar, illustrated with short notes. The many passages quoted in it from the *Yédas*, the *Purána*s, the *Sébras* of law and astronomy, the *Calpa*, or sacred ritual, and other works of immemorial antiquity and reputed holiness, would be thought highly interesting by such as take pleasure in researches concerning the *Hindus*, but a translation of them all would fill a considerable volume, and such only are exhibited as appeared most distinguished for elegance or novelty. The lunar year of three hundred and sixty days is apparently more ancient in *India* than the solar, and began, as we may infer from a verse in the *Másiya*, with the month *Aśvina*, so called because the moon was at the full when that name was imposed, in the first lunar station of the *Hindu* ecliptic, the origin of which, being diametrically opposite to the bright star *Chitrā*, may be ascertained

tained in our sphere with exactness; but, although most of the Indian feasts and festivals be regulated by the days of the moon, yet the most solemn and remarkable of them have a manifest reference to the supposed motions of the sun, the *Durgotsava* and *Holiça* relating as clearly to the autumnal and vernal equinoxes, as the sleep and rise of *Vishnu* relate to the solstices. The *sancrāntis*, or days which the sun enters a new sign, especially those of *Tulā* and *Mēṣā*, are great festivals of the solar year, which anciently began with *Pauṣa* near the winter solstice, whence the month *Margasirsha* has the name of *Agrabhadra*, or *the year is next before*. The twelve months, now denominated from as many stations of the moon, seem to have been formerly peculiar to the lunar year, for the old solar months, beginning with *Cbastrā*, have the following very different names in a curious text of the *Vēda*, on the order of the six Indian seasons, *Madhu*, *Mādhuva*, *Sucra*, *Suchi*, *Nabbas*, *Nabbasya*, *Iṣa*, *Urja*, *Sabas*, *Sabasya*, *Tapas*, *Tapasya*. It is necessary to premise, that the *muṇḍya chandra*, or primary lunar month, ends with the conjunction, and the *gaṇa chandra*, or secondary, with the opposition. Both modes of reckoning are authorized by the several *Purāṇas*. But, although the astronomers of *Cési* have adopted the *gaṇa* month, and place in *Bhadra* the birth-day of their pastoral God, the *muṇḍya* is here preferred, because it is generally used in this province, and especially at the ancient seminary of *Brāhmaṇa* at *Māyāpur*, now called *Na-vadwipa*, because a new island has been formed by the *Ganges* on the site of the old academy. The Hindus define a *īśi*, or lunar day, to be the time in which the moon passes through twelve degrees of her path, and to each *īśi*, or half month, they allow fifteen *īśibis*, though they divide the moon's orb into sixteen phases, named *cālās*, one of which they suppose constant, and compare to the string of a necklace or chaplet, round which are placed moveable gems and flowers. The *Mahākalā* is the day of the conjunction, called *Anā*, or *Amavāsyā*, and defined by *Gobhilla* the *day of the nearest approach to the sun*; on which obsequies are performed to the manes of the *Pitrīs*, or certain pro-

genitors of the human race, to whom the *Darker* fortnight is peculiarly sacred. Many subtle points are discussed by my author concerning the *junction* of two or even three lunar days in forming one fast or festival but such a detail can be useful only to the *Brâhmans*, who could not guide their flocks, as the *Râga* of *Crisphonagar* assures me, without the assistance of *Ragbunandan*. So fond are the *Hindus* of mythological personifications, that they represent each of the thirty *tî'bis* as a beautiful nymph, and the *Gâyatrîtantra*, of which a *Sannyâsi* made me a present, though he considered it as the holiest book after the *Veda*, contains flowery descriptions of each nymph, much resembling the delineations of the thirty *Râgîns* in the treatises on *Indian* music.

In what manner the *Hindus* coöperate so far to reconcile the lunar and solar years, as to make them proceed concurrently in their ephemerides, might easily have been shown by exhibiting a version of the *Nâdiya* or *Varânes* almanack; but their modes of intercalation form no part of my present subject, and would injure the simplicity of my work, without throwing any light on the religion of the *Hindus*. The following Tables have been very diligently compared by myself with two *Sanskrit* almanacks, with a superficial chapter in the work of *Abû'l-fazl*, and with a list of *Indian* holidays published at *Calcutta*, in which there are nine or ten fasts called *Jayantis*, distinguished chiefly by the titles of the *Avatâras*, and twelve or thirteen days marked as the beginnings of as many *Calpas*, or very long periods, an hundred of which constitute BRAHMA's age, but having found no authority for those holidays, I have omitted them. Some festivals, however, or fasts, which are passed over in silence by *Ragbunandan*, are here printed in *Italic* letters, because they may be mentioned in other books, and kept holy in other provinces, or by particular sects. I cannot refrain from adding, that *human sacrifices* were anciently made on the *Mahanavamî*, and it is declared in the *Bhawishya Purana*,

Purusa, that the head of a slaughtered man gives Durga a thousand times more satisfaction than that of a buffalo.

*Nárána híranya vira pýjita vidvároshunípa,
trípti bhavédi bhrítam Durgà verbovani lacchamtvacba.*

But in the *Brahma* every *heramedha*, or sacrifice of a man, is expressly forbidden; and in the fifth book of the *Bhágawat* are the following emphatical words " *Yé twiba vai puruṣabā puruṣamādibēna yajantे, yajéba frīyō nriपajūn* " *c'bādantे, tāñccha tāñcbe tे pāseva ita nibatā, yama jādanē yātayantō*, " *ratiśogana jaunicā ita sudhutinā 'vadāyefrīc privanti* " That is, " Whatever men in this world sacrifice human victims, and whatever women eat the flesh of male cattle, those men and those women shall the animals here slain torment in the mansion of *Yama*, and, like slaughtering giants, having cleaved their limbs with axes, shall quaff their blood " It may seem strange that a *human sacrifice* by a man should be no greater crime than eating the flesh of a male-beast by a woman, but it is held a mortal offence to kill any creature, except for sacrifice, and none but males must ever be sacrificed; nor must women, except after the performance of a *frāddha* by their husbands, taste the flesh even of victims Many strange ceremonies at the *Durgótsava* still subsist among the *Hindus*, both male and female, an account of which might elucidate some very obscure parts of the *Mosaic* law, but this is not a place for such disquisitions. The ceremony of *swinging* with iron hooks through the muscles, on the day of the *Cberer*, was introduced, as I am credibly informed, in modern times, by a superstitious Prince, named *Vâna*, who was a *Sarva* of the most austere feet but the custom is bitterly censured by learned *Hindus*, and the day is, therefore, omitted in the following abridgement of the *Tat'it tatwa*.

A'SWINA.

A'SWINI.

- I. Navarátricam. a.
- II.
- III Achusyá. b.
- IV
- V Sáyam-adhvása c.
- VI. Shastyádicalpa bódhanam. d.
- VII Patricá-pravésa e
- VIII Maháthámi Sandhipúja.
- IX. Mahánavami f. Manwantará. g.
- X. Vijayá b.
- XI
- XII
- XIII.
- XIV
- XV A'swini. Cójágara :.

a. By some the first *nine nights* are allotted to the decoration of DUKO'A', with ceremonies peculiar to each.

Bhaswibhyottara.

b. When certain days of the moon fall on certain days of the week, they are called *asfbáyás*, or *unperishable*.

c. The evening preparation for her dress

d. On

d. "On this day she is commonly awakened, and her festival begins

Dévi-purâna

e. She is invited to a bower of *leaves* from *nine* plants, of which the *Bilva* is the chief.

f. The last of the three great days. "The sacrificed beasts must be killed " at one blow, with a broad sword or a sharp axe."

Câlîch-purâna

g. The *fourteen* days, named *Manwanterâs*, are supposed to be the first of as many very long periods, each of which was the reign of a *Manu* they are all placed according to the *Bhavisîya* and *Mâtya*

b. The Goddess dismissed with reverence, and her image cast into the river, but without *Mantras*.

Baudbhâyana

i. On this full moon the fiend NICUMBHA led his army against DURGA', and LACSHMI descended, promising wealth to those who were awake hence the night is passed playing at ancient chess CUVERA also and INDRA are worshipped.

Lainga and *Brâhma*.

AŚWINA,

Or, *Certice*

- I.
- II.
- III.
- IV
- V
- VI.
- VII.
- VIII Dagdhá. *a*
- IX.
- X
- XI
- XII.
- XIII

- XIV Bhútachaturdasi Yamaterpanam. *b*
- XV. Laxhmípujá dípánvitá. *c* Syámápujá Ulcádánam *d*

a. The days called *dagdba*, or *burnt*, are variable, and depend on some inauspicious conjunctions

Vidyá-sironam.

b Bathing and libations to *Yama*, regent of the south, or the lower world, and judge of departed spirits.

Laxná

c. A fast

c. A fast all day, and a great festival at night, in honour of LACSHMI, with illuminations on trees and houses. Invocations are made at the same time to CLIVE'RA.

Rudra-dbera

" On this night, when the Gods, having been delivered by CE'SAVA, were
" slumbering on the rocks, that bounded the sea of milk, LACSHMI, no longer
" fearing the *Dautyas*, slept apart on a lotos."

Brâhma.

d. Flowers are also offered on this day to *Syâma*, or the Black, an epithet of BHAVA'NI, who appears in the *Calyug*, as a damsel twelve years old.

Vârânaśî Panjica

Torches and flaming brands are kindled and consecrated, to burn the bodies of kinsmen who may be dead in battle or in a foreign country, and to light them through the shades of death to the mansion of *Tama*.

Brâhma.

These rites bear a striking resemblance to those of *Ceres* and *Proserpine*.

CA'RICA.

CARTICA.

I. Dyúta pratipat *a.* Belipújá. *b.*

II. Bhrátri dwitíyá. *c.*

III.

IV

V.

VI

VII Acshayá.

VIII Góshtháshtami *d.*

IX. Durgá navamí. *e.* Yugádá *f*

X.

XI Utt'hánalcádasi *g* Baca panchacáram.

XII Manwantará

XIII.

XIV Sribérerukt'hánam.

XV Cártici Manwantará. Dánamávasyacam. *b.*

a MÁHA'DE'VA was beaten on this day at a game of chance by PA'RVATI; hence games of chance are allowed in the morning, and the winner expects a fortunate year
Bráhma.

b A nightly festival, with illuminations and offerings of flowers, in honour of the ancient king *Beli*
Vámena.

s YAMA, child of the Sun, was entertained on this lunar day by the river-goddess YAMUNA, his younger sister, hence the day is sacred to them

both, and sisters give entertainments to their brothers, who make presents in return

Lainga. Mabâbberata.

d Cows are on this day to be fed, caressed, and attended in their pastures; and the *Hindus* are to walk round them with ceremony, keeping them always to the right-hand.

Bbîma parâcrama.

e "To eat nothing but dry rice on this day of the moon for nine successive years will secure the favour of DûrGâ."

Câlîchâ-purâna.

f The first day of the *Tretâ Yuga.*

Vaiñâava Bbâhma.

g VISHNU rises on this day, and in some years on the *fourteenth*, from his slumber of four months He is waked by this incantation "The clouds are dispersed, the full moon will appear in perfect brightness, and I come, in hope of acquiring purity, to offer the fresh flowers of the season. Awake from thy long slumber, awake, O Lord of all worlds!"

Vârâha Mâtjya.

The Lord of all worlds neither slumbers nor sleeps

A strict fast is observed on the *eleventh*, and even the *Bâca*, a water bird, abstains, it is said, from his usual food.

Vidyâ firimani.

h. Gifts to *Brâhmans* are indispensably necessary on this day.

Râmâyana.

CA'RITIGAS.

Or, *Mārgasīrsha.*

- I.
- II.
- III.
- IV.
- V.
- VI
- VII
- VIII.
- IX.
- X.
- XI
- XII.
- XIII.
- XIV. Achayá.
- XV Gófahafri. a.

a. Bathing in the *Gang'*, and other appointed ceremonies, on this day, will be equally rewarded with a gift of a thousand cows to the *Brahmans*.

Vyāsa.

MĀRGASIRSHA.

I.

II.

III.

IV.

V.

VI. *Guba śrāḍṭī.* aVII. *Mitra saptami* b. Navánnam.

VIII. Navánnam.

IX.

X.

XI

XII. *Aśvamedha dvādaśī* Navánnam.

XIII.

XIV. Páshána chaturdasi c

XV. Mágasírshi Navánnam.

a. Sacred to SCANDA, or CA'RATIC'YA, God of Arms.

Bbewisbya.

b. In honour of the Sun. *Navánnam* signifies new grass, oblations of which are made on any of the days to which the word is annexed.

c. GAURI' to be worshipped at night, and cakes of rice to be eaten in the form of large pebbles

Bbewisbya.

MA'RGAŚTRSHA *

Or, *Pashcha.*

I

II.

III.

IV.

V.

VI

VII.

VIII Pūpāśtacá. *

IX. *Dugdbá.*

X

XI

XII

XIII

XIV.

XV.

* Cakes of rice are offered on this day, which is also called *Indri* from *Indra*, to the manes of ancestors.

Gobbila

PAUSHA.

- I The *morning* of the Gods, or beginning of the old *Hindu* year.
- II *Dagdbá.*
- III
- IV
- V.
- VI.
- VII
- VIII.
- IX
- X.
- XI. *Manwantara.*
- XII
- XIII
- XIV.
- XV. *Paushi.*

PAUSHA 2

Or, *Mágba*.

I

II

III

IV

V

VI.

VII

VIII Mánśásh tacá a.

IX.

X

XI

XII

XIII

XIV Rátanti, or the waters *speak*, b

XV.

a. On this day, called also *Prájápatiyá*, from *Prájápáti*, or the Lord of Creatures, the flesh of male kids or wild deer is offered to the manes.

Góbbila.

“ On the eighth lunar day Icahwa’cu spoke thus to his son Vieucshi.

“ Go, robust youth, and having slain a male deer, bring his flesh for the funeral oblation ”

Herrvansa.

b. Bathing at the first appearance of *Aruss*, or the dawn. *Tama*

MÁGHA.

MÁGHA.

I.

II.

III.

IV. Varadá chaturthí Gauripújá. *a.*V. Sri panchamí *b.*

VI

VII. Bháscara septamí. *c* Mácarí Manwantará.VIII. Bishmáhtamí. *d*

IX Mabánandá.

X

XI Bhaumi *e*XII Sháttiladánam *f.*

XIII.

XIV

XV Mághi. Yugádyà *g.* Dánamávásyacam.*a* The worship of GAURI, surnamed Varadá, or granting boons*Bhawißjottare.**b* On this lunar day SARASWATI, here called Sri, the Goddess of Arts and Eloquence, is worshipped with offerings of perfumes, flowers, and dressed rice. Even the implements of writing and books are treated with respect, and not used on this holiday
*Samskára pradipa**A Meditation on SARASWATI**c* May the goddess of speech enable us to attain all possible felicity, she who wears on her locks a young moon, who shines with exquisite lustre,
whose

' whose body bends with the weight of her full breasts, who sits reclined on a white lotos, and from the crimson lotos of her hands pours radiance on the instruments of writing, and on the books produced by her favour!'

Sáradá tilacā

c A fast in honour of the Sun, as a form of VISHNU

Várāba-purána

It is called also *Mácarā*, from the constellation of *Macara*, into which the Sun enters on the first of the solar *Mágha*

Critya calpa taru

This day has also the names of *Rat'byá* and *Rat'ba septam̄i*, because it was the beginning of a *Meswanitará* when a new Sun ascended his car

Nárafinba Mátṣya

d A libation of holy water is offered by all the four classes, to the manes of the valiant and pious BHIŚHMA, son of GANGA'.

Bbewisjyóltara

*e Ceremonies with *tila*, or *sesamum*, in honour of BHI'MA*

Vijbhuk-dberma

f Tila offered in six different modes.

Mátṣya

*g The first day of the *Calyuga**

Brábma

MA'GHA

Or, *Pbalguna*.

I.

L

II

III.

IV.

V.

VI

VII

VIII Sácásh tacá a.

IX.

X

XI

XII.

XIII

XIV Siva rátri b

XV

a Green vegetables are offered on this day to the manes of ancestors it is called also *Vayśwēdēviśi*, from the *Vayśwēdēvdb*, or certain paternal progenitors.

Göbbula.

b A rigorous fast, with extraordinary ceremonies in honour of the *Sivalinga*, or Phallus.

Tjāna sambitā

- I.
- II.
- III
- IV. *Dasydbā.*
- V.
- VI.
- VII.
- VIII.
- IX.
- X
- XI
- XII Góvinda dwádasi. *a.*
- XIII
- XIV P'hálguni. Manwantari. Dólayátrá. *b.*

a Bathing in the *Gangā* for the remission of mortal sins.

Pádma

b *Hélucā*, or *P'balgút'sava*, vulgarly *Huli*, the great festival on the approach of the vernal equinox.

Kings and people *sport* on this day in honour of *Grovinda*, who is carried in a *dála*, or palasquin

Brábma Scánda.

P'HA'LGUNA :

Or, *Cbastra.*

I.

II.

III.

IV.

V.

VI

VII

VIII. *Sitalá pújá.*

IX.

X.

XI

XII.

XIII. *Mebavárni ?*

XIV.

XV. Mauni. & Achayá. Manwantarí.

a. Bathing in silence.

Vyája. Siánda.

CHAITRA.

- I. The lunisolar year of VICHRAMĀ'DITYA begins
 II
 III. Manwantarā.
 IV.
 V
 VI Scanda-shashti a.
 VII.
 VIII. Asócashtamī b.
 IX Sríráma-navamī c.
 X
 XI
 XII
 XIII Madana-trayódasí d
 XIV. Madana-chaturdasi e
 XV. Chaitri Manwantarā.

- a Sacred to CA'RTRICSYA, the God of War Dévi-purána
 b Men and women of all classes ought to bathe in some holy stream,
 and, if possible, in the *Brabmaputra* they should also drink water with buds
 of the *Ajóca* floating on it See p 254 Scánda.
 c The birth-day of RA'MA CHANDRA Ceremonies are to be performed
 with the mystical stone *Sálagráma* and leaves of *Tulasi* Agastya.
 d A festival in honour of Címa díva, God of Love. Bhawisjya
 e. The same continued with music and bathing Saúrágama Divala

The Hymn to CA'MA.

1 Hail, god of the flowery bow, hail, warrior with a fish on thy banner,
hail, powerful divinity, who causeth the firmness of the sage to forsake him,
and subduest the guardian deities of eight regions !

2 O, CANDARPA, thou son of MA'OHAVA ! O, Ma'va, the * CAMB-
HARA ! Glory be to thee, who lovest the goddess RFTI, () , whom
all worlds are subdued, to thee, who springest from the heart !

3 Glors be to MADAVA, to CA'VA, to Him who is formed as the God of
Gods, to Him, by whom BRA'HMA, VISHNU, SIVA, INDRA, are filled with
emotions of rapture !

4 May all my mental cares be removed, all my corporeal sufferings ter-
minate ! May the object of my soul be attained, and my felicity continue for
ever !

CHAITRA

Or, *Vasat ba*

- I
- II *Dagdbā.*
- III
- IV
- V
- VI
- VII
- VIII
- IX
- X
- XI
- XII
- XIII
- XIV *A* a *and nam b*
- XV

a So called from *Varuna*, or the lunar constellation *Satabhyā*. When it falls on Saturday, it is named *Mahāvarunī*. Bathing by day and at night in the *Gangā* *Scanda*

b Sacred, I believe, to the planet *Mangala* "A branch of *Snubī* (*Euphorbia*) in a whitened vessel, placed with a red flag on the house-top, "on the fourteenth of the dark half of *Chaitra*, drives away sin and disease"

Rajamartanda

VĀISĀC'HA

I

II

III. Acshayā tritiyā *a* Yugadyā *b* Paraisurāma.

IV

V.

VI Dagdhā.

VII Jābnu septamī

VIII.

IX.

X

XI

XII Pipítaca pñádasi, *a*

XIII.

XIV Nríñiba chaturdasi,

XV Vaiśac'hí Dánamávayacam

a Gifts on this day of water and grain, especially of barley, with oblations to KRISHNA of perfumes, and other religious rites, produce fruit without end in the next world.

Scánda. Brábma. Bhátwisbya.

*b. The first day of the Satya yuga.**Brâhma Vaišnava*

" Water and oil of *tila*, offered on the *Yug'âyus* to the *Puris*, or progenitors
of mankind, are equal to obsequies continued for a thousand years "

Vishnu-purâna

This was also the day on which the river *Gangâ* flowed from the foot of
VISHNU down upon *Himâlaya*, where she was received on the head of *SIVA*,
and led afterwards to the ocean by king *Bhôgîrata*; hence adoration is now
paid to *Gangâ*, *Himâlaya*, *Sancara*, and his mountain *Ca laja*, nor must
Bhôgîrata be neglected

*Brâhma**c Libations to the manes.**Raglunandan**Note on p 275**Dô'câra l*

Compare this holiday, and the superstition on the fourth of *Bedâr*, with
the two Egyptian festivals mentioned by PLUTARCH, one called the *ent'ance of
Osiris into the Moon*, and the other, *vis confinement or inclosure in an Ark*

The people usually chum *four* other days for their sports, and sprinkle one
another with a *red powder*, in imitation of vernal flowers it is commonly
made with the mucilaginous root of a fragrant plant, coloured with *Balkan*,
or *Sapfen*-wood, a little alum being added to extract and fix the redness,

VĀISAṄHA;

Or, यजिष्ठा.

I.

II

III

IV Dagdhā.

V

VI

VII

VIII

IX.

X

XI.

XII

XIII

XIV Sávitri vratam *a*

XV

a A fast, with ceremonies by women, at the roots of the Indian fig-tree, to preserve them from widowhood

Pa'raśara Rdjamārtanda.

Cṛitya cintāmeni

JYĀIŚHT'HĀ

- I
- II.
- III Rembhá tritiyā. *a.*
- IV
- V
- VI Aranya shash्त्रि *b*
- VII *Aṣṭbayā*
- VIII
- IX
- X Dasaharā *c*
- XI. *Nirjaluucádasi* *d*
- XII
- XIII
- XIV *Champaca chaturdasi* *e*
- XV. Jyāiśht'hí Manwantarā

a On this day of the moon the *Hindu* women imitate REMBHÁ, the Sea-born Goddess of Beauty, who bathed on the same day, with particular ceremonies

Bbawijbyōttara

b Women walk in the *forests* with a fan in one hand, and eat certain vegetables, in hope of beautiful children.

Rājamartanda

See the account given by PLINY of the *Druideal* mistletoe, or *viscum*, which was to be gathered when the moon was *six* days old, as a preservative from sterility.

c The word means *ten-remoring*, or *removing ten sins*, an epithet of *Ganga*, who effaces *ten* sins, how heinous soever, committed in *ten* previous births by such as bathe in her waters.

Bra'bma-varvarta

A Couplet by SANC'HA

" On the tenth of *Jyaiṣṭha*, in the bright half of the month, on the day
 " of MANGALA, Son of the Earth, when the moon was in *Hasta*, this daughter
 " of *Tānu* burst from the rocks, and flowed over the land inhabited by
 " mortals on this lunar day, therefore, she washes off ten sins (thus have the
 " venerable sages declared) and gives an hundred times more felicity than
 " could be attained by a myriad of *Aśwamedhas*, or *sacrifices of a horse*"

d A fast so strict, that even water must *not* be tasted.

e. A festival, I suppose, with the flowers of the *Champaca*.

JYĀISRT'HAT;

Or, *Aśārtha.*

I

II.

III.

IV *Degdbād.*

V.

VI.

VII.

VIII.

IX

X Ambuváchí pradam. *a.*

XI

XII.

XIII. Ambuváchí tyágah.

XIV.

XV Góśahasrī.

*a The Earth in her courses till the thirteenth.**Jyotiṣha.*

A'SHA'D'HA.

I

II Rat'ha Yátrá *a.*

III

IV.

V.

VI

VII

VIII

IX.

X Manwantarí

XI Sayanaicádisi Rátrau śayanam *b.*

XII

XIII

XIV

XV Aśhādhi Mahwantara Pūnamavivacan

a. The image of CRISHNA, in the character of Jagannáth'a, or Lord of the Universe, is borne by day in a car, together with those of BALARA'MA and SIBH DRA' when the moon rises the feast begins, but must end as soon as it sets

Scánda

b. The *guru* of the Gods beginning with the summer solstice, VISHNU reposes four months on the serpent SESSHA Bhagvata Mátya Vareba

A'SHA'D'HA

Or, *Sravana*

I

II

III

IV.

V Manasápanchamí *a*VI *Dagdbis*

VII

VIII Manwantará

IX

X

XI

XII

XIII

XIV.

XV

-

a In honour of De'vi, the Goddess of Nature, surnamed *Manesá*, who, while VISHNU and all the Gods were sleeping, sat in the shape of a serpent on a branch of *Snubhi*, to preserve mankind from the venom of snakes.

Garuda. De'vi-pu. nr

ŚRĀVANA.

- I.
- II.
- III.
- IV.
- V. Nágapanchamí a.
- VI
- VII
- VIII
- IX.
- X
- XI
- XII
- XIII
- XIV.
- XV. Srávani

a Sacred to the Demigods in the form of *Serpents*, who are enumerated in the *Padma* and *Gáruḍa puráṇas*. Doors of houses are smeared with cow-dung and *Nimba*-caves, as a preservative from poisonous reptiles.

Bhawishya
Retnácarā

Both in the *Padma* and *Gáruḍa* we find the serpent *Cáliya*, whom CRISHNA flew in his childhood, among the deities worshipped on this day, as the *Pythian* snake, according to CLEMENS, was adored with APOLLO at *Delphi*.

SRA'VANA
Or, *Bhâdra*

I

II.

III

IV

V

VI

VII *Dagdbâ.*

VIII Crîshnajanmâshṭamî a Jayanti b

IX

X

XI

XII

XIII Yugâdyâ c

XIV.

XV Amavâsyâ

a. The birth-day of CRISHNA, son of MAHA'MA'YA, in the form of DE'VATâ
Vâsiñhava Bhawîshyottara

b A strict fast from midnight In the book, entitled *Dwâsta nirnaya*, it is said, that the *Jayanti yoga* happens whenever the moon is in *Rohini* on the eighth of any dark fortnight; but VARA'HÀ MÎHIRA confines it to the time when the Sun is in *Sînha*. This fast, during which CHANDRA and RO'HINI are worshipped, is also called *Rôhini vrata*
Brâbmânda.

c The first day of the *Dwâpara Yuga*

Brabma

BHA'DRA.

I

II.

III. Manwantarā

IV *Heritálicā. Gaṇīśa chaturthī Nashtachandra. a.*V. *Riṣbi panchamī*

VI

VII *Acshayá lalitā b*VIII *Dúrváshtamī c*

IX

X

XI. *Párfwaperivertanam d.*XII *S'acrott'hánam e*

XIII

XIV *Ananta vrataṁ f*XV *Bhádrī*

a CRISHNA, falsely accused in his childhood of having stolen a gem from PRASE'NA, who had been killed by a lion, *hid himself in the moon*, to see which on the two fourth days of *Bhadra* is inauspicious

*Brāhma.**Bṛojaśéva*

b A ceremony, called *Cuccuti vratam*, performed by women, in honour of Siva and Durga.

Bbawisbya

c "The family of him who performs holy rites on this lunar day, shall flourish and increase like the grass *dárva*" It is the rayed *Agrofis*.

Bbawisbyottara

d Visnu sleeping turns on his side

Mutya
Bbawisbya

e Princes erect poles adorned with flowers, by way of standards, in honour of Indra. The ceremonies are minutely described in the Câlîcâ-purâna

f Sacred to Vishnu, with the title of *Ananta*, or Infinite.

Bbawisbyottara

BHA'DRA

Or, *Mśwīsa.*I Aparapaccha. *Brāhma jāvīṣī.*

II.

III.

IV Nafhta-chandra

V.

VI.

VII Agastyodayah *a.*

VIII.

IX Bódharam. *b.*

X

XI

XII

- XIII *Magkáreyodasi fráddham*

XIV.

XV Mahálayá. Amávásyá

a Three days before the sun enters the constellation of *Canyá*, let the people who dwell in *Gaura* offer a dish of flowers to AGASTYA.

Brāhma-varavita

Having poured water into a sea-shell, let the votary fill it with white flowers and unground rice then, turning to the south, let him offer it with this incantation ‘Hail, CUMĀYAVĀN, born in the sight of MITRA and VARUNA, bright as the blossom of the grass cāsa, thou, who sprangest from AGNI and MA'RUTA’ Cāsa is the spontaneous Saccarum

Nārāfinīa

This is properly a festival of the solar year, in honour of the sage AGASTYA, supposed, after his death, to preside over the star *Caropas*.

Some begin on this day, and continue till the ninth of the new moon, the great festival called *Durgōjāva*, in honour of DURGĀ, the Goddess of Nature, who is now awakened with sports and music, as she was waked in the beginning by BRAHMĀ during the night of the Gods

C. sā purāna

Note on p 264 Utrabhānacādīsi g

In one almanack I see on this day *Tulasī-vivaha*, or the marriage of TULASI, but have no other authority for mentioning such a festival. TULASI was a nymph beloved by KRISHNA, but transformed by him into the *Parnasa*, or black *Ocymum*, which commonly bears her name

General Note

If the festivals of the old Greeks, Romans, Persians, Egyptians, and Goths, could be arranged with exactness in the same form with these Indian Tables, there would be found, I am persuaded, a striking resemblance among them, and an attentive comparison of them all might throw great light on the religion, and, perhaps, on the history, of the primitive world

XIII.

ON EGYPT

AND

Other COUNTRIES adjacent to the CA'LI RIVER, or NILE of ETHIOPIA

FROM THE ANCIENT BOOKS OF THE HINDUS

BY

Lieutenant FRANCIS WILFORD

SECTION THE FIRST

MY original design was to compose a dissertation entirely *geographical* on Egypt and other Countries bordering upon the *Nile*, but as the *Hindus* have no regular work on the subject of geography, or none at least that ever came to my knowledge, I was under a necessity of extracting my materials from their historical poems, or, as they may be called more properly, their legendary tales, and in them I could not expect to meet with requisite data for ascertaining the relative situations of places. I was obliged, therefore, to study such parts of their ancient books as contained geographical information, and to follow the track, real or imaginary, of their deities and heroes; comparing all their legends with such accounts of holy places in the regions of the east, as have been preserved by the *Greek* mythologists, and endeavouring to prove the identity of places by the similarity of names and of remarkable circumstances, a laborious though necessary operation, by which the progress of my work has been greatly retarded.

The mythology of the *Hindoos* is often inconsistent and contradictory, and the same tale is related many different ways. Their physiology, astronomy, and history, are involved in allegories and enigmas, which cannot but seem extravagant and ridiculous; nor could any thing render them supportable, but a belief that most of them have a recondite meaning; though many of them bad, perhaps, no firmer basis than the heated imagination of deluded fanatics, or of hypocrites interested in the worship of some particular deity. Should a key to their eighteen *Puranas* exist, it is more than probable that the wards of it would be too intricate, or too stuff with the rust of time, for any useful purpose, yet, as a near coincidence between *proper names* and *circumstances* could scarce have been accidental, some light might naturally be expected from the comparison which I resolved to make. It is true, that an accurate knowledge of the old northern and western mythology, of the *Coptic* and other dialects now used in countries adjacent to the *Nile*, of eastern languages, and, above all, of *Sanskrit*, may be thought essentially necessary for a work of this nature, and unfortunately I possess few of these advantages, yet it will not, I hope, be considered as presumptuous, if I present the *Asiatick Society* with the result of my inquiries, desiring them to believe, that when I seem to make any positive assertion, I only declare my own humble opinion, but never mean to write in a dogmatical style, or to intimate an idea, that my own conviction should preclude in any degree the full exercise of their judgment.

So striking, in my apprehension, is the similarity between several *Hindoos* legends and numerous passages in Greek authors concerning the *Nile*, and the countries on its borders, that, in order to evince their identity, or at least their affinity, little more is requisite than barely to exhibit a comparative view of them.

The

The *Hindus* have no ancient civil history, nor had the *Egyptians* any work purely historical, but there is abundant reason to believe that the *Hindus* have preserved the religious fables of *Egypt*, though we cannot yet positively say by what means the *Brâbmens* acquired a knowledge of them. It appears, indeed, that a free communication formerly subsisted between *Egypt* and *India*, since PTOLEMY acknowledges himself indebted for much information to many learned *Indians* whom he had seen at *Alexandria*, and LUCIAN informs us, that pilgrims from *India* resorted to *Hierapolis* in *Syria*, which place is called in the *Puranas*, at least as it appears to me, *Mabâbbagâ*, or the station of the Goddess *Dât*, with that epithet. Even to this day the *Hindus* occasionally visit, as I am assured, the two *Jwâlâ-muc'bi*, or Springs of Naphtha, in *Cusba-dwipa* *witam*, the first of which, dedicated to the same goddess, with the epithet *Aniyasâ*, is not far from the *Tigris*, and STRABO mentions a temple, on that very spot, inscribed to the goddess *Anias*.

The second, or great *jwâlâ-muc'bi*, or spring with a flaming mouth, is near *Bâku*; from which place, I am told, some *Hindus* have attempted to visit the *Sacred Islands* in the west, an account of which, from the *Purânas*, will (if the publick approve this essay) be the subject of a future work. A *Yôgî*, now living, is said to have advanced, with his train of pilgrims, as far as *Moscow*, but, though he was not ill used by the *Russians*, they flocked in such crowds to see him, that he was often obliged to interrupt his devotions, in order to satisfy their curiosity; he therefore chose to return, and, indeed, he would probably have been exposed to similar inconvenience in the *Sacred Isles*, without excepting *Breta-f'bâ'n*, or the *place of religious duty*. This western pilgrimage may account for a fact mentioned, I think, by CORNELIUS NEROS, (but, as printed books are scarce in this country, I speak only from recollection,) that certain *Indi*, or *Hindus*, were ship-wrecked on the shores of the *Baltick*

Many *Brahmans*, indeed, assert, that a great intercourse anciently subsisted between *India* and countries in the west; and, as far as I have examined their sacred books, to which they appeal as their evidence, I strongly incline to believe their assertion.

The *Sanskrit* books are, both in size and number, very considerable, and, as the legends relating to *Egypt* lie dispersed in them, without order or connexion, I have spared neither labour nor expense to collect them, but, though I have in that way done much, yet much remains to be done, and must be left, I fear, to others, who can better afford to make a collection so voluminous and expensive. I had the happiness to be stationed at *Banares*, the centre of *Hindu* learning, and, though my laborious duties left me very little time for literary pursuits, yet my appointment supplied me with means to defray the necessary charges, which I could not otherwise have afforded. To the friendship of Mr. DICKAN I am deeply indebted, his encouragement and support had a great effect on the *Brāhmens*; nor should I, without his assistance, have met with that success which has rewarded my labour. It will appear, in the course of my essay, that I have derived infinite advantage from the Travels of Mr. BRUCE, to which I so frequently refer, that it was hardly possible to cite them constantly, and I make this general acknowledgment of my obligation to him even the outline of the Map prefixed to this dissertation is borrowed from his elaborate Chart. Those who may follow me in this path, will add considerably, no doubt, to the materials which I have amassed, and may possibly correct some errors into which I may have fallen happy shall I be to have led the way to discoveries, from which very important conclusions may be deduced.

The *Hindus*, I believe, have no work professedly written on *popular* geography, that is, on the face of this globe according to the system of their astronomers. They have large charts of the universe according to the *Pauráncas*, with explanatory notes, and, perhaps, with treatises to elucidate their fables; and some of the *Puráñas* contain lists of countries, rivers and mountains, with a general division of the known world, which are also to be found in a few of their astronomical books. The *Bauddhas*, or followers of JINA, have a small tract on geography, entitled *Triloka Dérpan*, or, *The Mirror of Three Worlds*, which Mr. BURROW was so kind as to lend me. It is a most extravagant composition, and such is the antipathy of the Bráb-mens to the *Járas*, that no explanation of it can be expected from them, but, should I have leisure and opportunity to examine it, the task may be attended with some advantage, though the proper names are in general changed and accommodated to the heterodox system.

According to the orthodox *Hindus*, the globe is divided into two hemispheres, both called *Méru*, but the superior hemisphere is distinguished by the name of *Skméru*, which implies beauty and excellence, in opposition to the lower hemisphere, or *Cuméru*, which signifies the reverse. By *Méru*, without any adjunct, they generally mean the higher or *northern* hemisphere, which they describe, with a profusion of poetical imagery, as the seat of delights; while they represent *Cuméru* as the dreary habitation of demons, in some parts intensely cold, and in others so hot, that the waters are continually boiling. In strict propriety, *Méru* denotes the pole and the polar regions, but it is the celestial north pole, round which they place the gardens and metropolis of INDRA, while YAMA holds his court in the opposite polar circle, or the station of *Ajuras*, who warred with the *Suras*, or Gods of the Firmament. There is great reason to believe that the old inhabitants of

the southern hemisphere, among whom were the *Ethiopis* and *Egyptians*, entertained a very different opinion of their own climate, and of course represented the summit of the northern hemisphere as a region of horrors and misery. We find, accordingly, that the *Greeks*, who had imported most of their notions from *Egypt*, placed their hell under the north pole, and confined *Cronos* to a cave in the frozen circle. In the *Puráñas* we meet with strong indications of a *terrestrial paradise*, different from that of the general *Hindu* system, in the southern parts of *Africa*, and this may be connected with the opinion adopted by the *Egyptians*, who maintained it against the *Scythians* with great warmth, (for the ancient inhabitants of the two hemispheres were perpetually wrangling on their comparative antiquity,) that the *Ethiopians* were the oldest nation on earth.

Several divisions of the old continent were made by different persons at different times, and the modern *Brábmens* have jumbled them all together. The most ancient of them is mentioned in the *Puráñas*, entitled *Váyu* and *Brabmunda*, where that continent is divided into seven *dwípas*, or countries with water on two sides, so that, like *jazírab* in *Arabick*, they may signify either *islands* or *peninsulas*. They are said to be wholly surrounded by a vast ocean, beyond which lie the region and mountains of *Atala*, whence most probably the *Greeks* derived their notion of the celebrated *Atlantis*, which, as it could not be found after having once been discovered, they conceived to have been destroyed by some shock of nature, an opinion formed in the true *Hindu* spirit, for the *Brábmens* would rather suppose the whole economy of the universe disturbed, than question a single fact related in their books of authority. The names of those islands, or peninsulas, are *Jambu*, *Anga*, *Tama*, *Tamala* or *Malaya*, *Sanc'ba*, *Cusba*, and *Varába*.

In the centre is JAMBU, or the inland part of *Afia* to the east of it are *An-ga*, *Tama*, and *Tamala*, reckoned from north to south, to the west, *Sanc'ba*, *Cufba*, and *Varába*, reckoned from south to north. *Tama* and *Cufba* are said to be due east and west, in respect of *India*, and this is indubitably proved by particular circumstances.

Sanc'ba dwíp is placed in the south-west, supposed to be connected with *Tamala*, and with it to embrace an immense inland sea. Between them the Hindus place *Lancá*, which they conceive extended to a considerable distance, as far as the equator, so that *Sanc'ba* must be part of *Africa*, and *Tamala*, or *Malaya*, the peninsula of *Malacca*, with the countries adjacent. This notion of a vast inland sea PTOLEMY seems to have borrowed from the Hindus whom he saw at *Alexandria*, for before his time there was no such idea among the Greeks. He calls it *Hippodæs*; a word which seems derived from *Abðbi*, a general name for the sea in the language of the *Brâhmens*. We may collect, from a variety of circumstances, that *Cufba dwíp* extends from the shore of the Mediterranean, and the mouths of the *Nile*, to *Serhind*, on the borders of *India*.

In a subsequent division of the globe, intended to specify some distant countries with more particular exactness, six *dwípas* are added, *Placba*, *Sálmalî*, *Crauncha*, *Sáca*, *Puscarâ*, and a second *Cufba*, called *Cufba dwípa without*, in opposition to the former, which is said to be *within*, a distinction used by the *Brâhmens*, and countenanced in the *Purânas*, though not positively expressed in them. The six new *dwípas* are supposed to be contained within those before mentioned, and the *Purânas* differ widely in their accounts of them, while the geography of the former division is uniform.

Six of the ancient divisions are by some called *upa-dwipas*, because they are joined to the large *dwipa*, named *Jambu*; and their names are usually omitted in the new enumeration. Thus *Cusba-dwip within* is included in *Jambu-dwipa*, and comprises three out of seven *cbandas*, or sections of *Bharatavarsha*. Another geographical arrangement is alluded to by the poet, CA'LIDA's, who says, that "RAGHU erected pillars of conquest in each of the eighteen *dwipas*," meaning, say the *Pandits*, seven principal, and eleven subordinate, isles or peninsulas. *Upa*, the same word originally with *bhava* and *sub*, always implies inferiority, as *upaveda*, a work derived from the *Veda* itself, *upapātaka*, a crime in a lower degree, *upadberma*, an inferior duty but great confusion has arisen from an improper use of the words *upadwipa* and *dwipa*.

Cusba-dwipa without is *Abyssinia* and *Ethiopia*, and the Brāhmens account plausibly enough for its name, by asserting, that the descendants of *Cusha*, being obliged to leave their native country, from them called *Cusba-dwipa within*, migrated into *Sanc'ba'-dwip*, and gave to their new settlement the name of their ancestor, for, though it be commonly said, that the *dwipa* was denominata from the grass *Cusba*, of the genus named *Poa*, by LIV-NÆUS, yet it is acknowledged, that the grass itself derived both its appellation and sanctity from *Cusha*, the progenitor of a great Indian family. Some say that it grew on the *valmīca*, or hill formed by *termites*, or white ants, round the body of *Cusha* himself, or of *Caushica*, his son, who was performing his *tapañjā*, or act of austere devotion but the story of the ant-hill is by others told of the first *Hindu* poet, thence named *VALMI'CA*.

The countries which I am going to describe lie in *Sanc'ba-dwip*, according to the ancient division, but, according to the new, partly in *Cusba-dwip*

without, and partly in *Sanc'ba-dwip proper* and they are sometimes named *Cálitata*, or *banks* of the *Cáli*, because they are situated on both sides of that river, or the *Nile of Ethiopia*. By *Cálitata* we are to understand *Etiópia*, *Nubia*, and *Egypt*. It is even to this day called by the *Bráhmens* the country of *Dévatás*; and the Greek mythologist asserted, that the Gods were born on the banks of the *Nile*. That celebrated and holy river takes its rise from the *Lake of the Gods*, thence named *Amara*, or *Déva*, *Sarovera*, in the *region* of *SHARMA*, or *Sharma-st'hán*, between the mountains of *Ayágara* and *Stanta*, which seem part of *Sóma-gri*, or the *Mountains of the Moon*, the country round the lake being called *Chándri-st'hán*, or *Moonland* thence the *Cáli* flows into the marshes of the *Padma-van*, and through the *Níbadba* mountains, into the land of *Berbara*, whence it passes through the mountains of *Hémocuta*, in *Sanc'ba-dwip proper*, there entering the forests of *Tapas*, or *Thela's*, it runs into *Cantaca-désa*, or *Mishra-st'hán*, and through the woods emphatically named *Arahyá* and *Ataví*, into *Sanc'báddi*, or our *Mediterranean*. From the country of *Pushpavarsa* it receives the *Nandá*, or *Nile of Abyssinia*, the *Aj'bimati*, or smaller *Crisbná*, which is the *Tacazzé*, or little *Abay*, and the *Sanc'banágá*, or *Moreb*. The principal tribes or nations who lived on its banks, were, besides the savage *Pulindas*, 1 the *S'bármicas*, or *S'bamicas*, 2 the Shepherds, called *Pali*, 3 the *Sanc'báyanas*, or *Truglodytes*, named also *Sanc'báyanas*, 4 the *Cutila-cícas*, or *Cutlalacas*, 5 the *Syama-muc'bas*, 6 the *Dánavas*, and 7 the *Tavanas*. We find in the same region a country denominated *Sri-rájya*, because it was governed by none but Queens.

The river *Cáli* took its name from the goddess *Maha'-ca'li'*, supposed to have made her first appearance on its banks in the character of *Réjerry-sward*, call d

called also ISA'NI and ISI, and, in the character of SATI', she was transformed into the river itself. The word *Cila* signifies black; and, from the root *cal*, it means also devouring, whence it is applied to Time, and, from both senses in the feminine, to the Goddess in her *destructive* capacity; an interpretation adopted, as we shall see hereafter, in the *Purânae*. In her character of MAHA'CA'LÌ she has many other epithets, all implying different shades of black or dark azure, and in the *Câlîcâ-purân*, they are all ascribed to the river. They are Câli or Câla, Nilâ, Afîla, Sbyâmañ or Sbyâmañd, Mâchacâ, Anjânâbbâ, Crisbñâ. The same river is also called Nâbuñi, from the celebrated warior and conqueror, usually entitled DEVA'-NAUSHA, and, in the spoken dialects, DEO-NAUSH. He is the Dionysius, I believe, of the ancient Europeans.

By the Greeks, Romans, and Hebrews, the *Nile* (which is clearly a *Sanskrit* word) was known also by the following names *Melas*, *Melo*, *Egyptos*, *Sikbor* or *Sbor*, *Nous* or *Nâs*, *Aetos*, *Sris*, *Oceanus*, *Triton*, *Potamos*. The word *Nous* (a) is manifestly corrupted from *Nabush*, or *Naush*, *Aetos*, from king *It* or *At*, an *avântara*, or inferior incarnation, of MAHA'DEVA. *Egyptos*, from *Agupta*, or on all sides guarded, and *Triton*, probably, from *Tritans*, as the *Ethiops*, having no such letter as *p*, and generally substituting *t* in its room, would have pronounced *Triptuni*, which is a common Indian corruption of *Trivînî*.

The *Sanskrit* word *Trivînî* properly means with three plaited locks, but it is always applied to the confluence of three sacred rivers, or to the branching of a river into three streams. *AETHICUS*, in his Cosmography, instead of saying

(a, II. 110. APOLIO. wrg: NILO. ðyâgâvatas. B. 1.)

that

that the *Hydaspes* flows from a place named *Trivini*, uses the phrase *three hairs*, or *three locks of hair*, which is a literal version of the *Sanskrit*. Now the *Câlî* consists of *three sacred streams*, the *Nilâ*, or *Nile* of *Ethiopia*, the *Nandâ*, or *Nile* of *Abyssinia*, and the little *Crishnâ*, or *Asthamasî*. The junction of the great *Crishnâ* with the *Nandâ* was held peculiarly sacred, as appears from the following couplets in the *Atbarvavâda*, which are cited in the original as a proof of their authenticity.

Bhadrâ bbagavati Crishnâ grabanac/batra mâlinî,
 Samvîsanî sanyamâ, vîtwasya jagato nrî,
 Agnicaura nîpâtenu serva grâs navârant,
 Dacshâ bbagavati devî Nandayâ yatra sangatâ
 Serva pâpa prâlamânâ bbadrê páramâst mabi,
 Sîtâ fitasamâyugât param yâ na nivartate.

That is word for word

" CRISHNA' the prosperous, the imperial, the giver of delight, the restrainer
 " of evil, decked, like the night of the whole world, with a chaplet of planets
 " and stars, the sovereign goddess transcendently beneficial in calamities from
 " fire and robbers, in checking the bad influence of all planets, where she is uni-
 " ted with the NANDA' she it is who expiates all sin O, propitious river,
 " thou art the mighty goddess, who causes us to attain the end of mortal births,
 " who, by the conjunction of black with white waters, never ceases to pro-
 " duce the highest good "

Potamos, or the river, in THIOPHRASTUS, is commonly supposed to be only an emphatical appellative denoting superiority, but I cannot help thinking it is

derived from the *Sanskrit* word *Padma*, which I have heard pronounced *Padam*, and even *Potam*, in the vulgar dialects. It is the *Nymphaea* of LINNÆUS, and most certainly the *Lotos* of the *Nile*, on the pericarp of which a frog is represented sitting in an *Egyptian* emblem engraved by MONTFAUCON, (a) That river, and the marshes near it, abound with that lovely and useful plant; and we shall see presently that *Câlî* herself is believed to have made its beautiful flower her favourite place of residence, in the character of *Padmâ-dévi*, or the Goddess in the *Lotos*. Most of the great rivers on which the *Nymphaea* floats in abundance, have the epithet of *Padmavati*, or *Padmamati*, and the very word *Potamos*, used as an appellative for a large river, may be thence derived, at least the common etymology of that word is far less probable.

We before observed, that the source of the *Nilé* is in the extensive region of *Sharma*, near the mountains of *Sôma*, in the masculine, or *Dei Lanî*, and that it issues from the Lake of the Gods, in the country of *Chandrî*, in the feminine, or *Dea-Lane*. To the word *Sarôvara*, or *Considerable Lake*, is prefixed in composition either *Amara*, *Sura*, or *Utra*, and the compound *Déva-sarovara* is generally pronounced, in common speech, *Deo-saraur*. It lies between two ranges of hills, one to the east, called *Ayagara*, or *not wakeful*, and the other to the west, named *Sitânta*, or *end of cold*, which implies that it may have snow on its summit, but in a very small quantity.

Sharma-f'ban, called also the mountainous region of *Ayagara*, is said, in the *Brâhmanda-purân*, to be 300 *Yojans*, or 1476 3 *British* miles, in length, and

100 m breadth, or 492 12 miles. The mountains were named *Ajagara*, or of those who watch not, in opposition to the mountains of *Abyffinis*, which were inhabited by *Nifacbaras*, or night rovers, a numerous race of *Trocas*, but not of the most excellent class, who used to sleep in the day time, and revel all night. Mr. BRUCE speaks of a *kowas*, or watching dog, who was worshipped in the hills of *Abyffina*.

The mountains of *Sôma*, or the Moon, are so well known to geographers, that no farther description of them can be required, but it may be proper to remark, that PROLEMY places them too far to the south, and M D'ANVILLE too far to the north, as it will hereafter be shown. According to Father LOBO, the natives now call them *Toroa*. The *Ajagara* Mountains, which run parallel to the eastern shores of Africa, have at present the name of *Lopata*, or the Backbone of the World; those of *Sitânta* are the range which lies west of the Lake Zambre, or *Zaire*, words not improbably corrupted from *Amara* and *Sura*. This Lake of the Gods is believed to be a vast reservoir, which, through visible or hidden channels, supplies all the rivers of the country. The Hindus, for mythological purposes, are fond of supposing subterranean communications between lakes and rivers, and the Greeks had similar notions. Mr. BRUCE, from the report of the natives, has placed a reservoir of this kind at the source of the White River, (a,) which (though the two epithets have opposite senses) appear to be the *Câl* of the *Purdns*. It may have been called *white* from the *Cumuda*, which abounds in its waters, at least the mountains near it are thence named *Cumudâdris*; and the *Cumuda* is a water flower sacred to the Moon, which VAN RHEEDE has exhibited, and which seems to be either a *Me-*

mantbes, or a *Hydrophyllum*, or a small white *Nymphaea*. The Lake of the *Amarā*, or Immortals, was not wholly unknown to the *Greeks* and *Romans*, but they could not exactly tell where it was situated, and we are not much better acquainted with its true (*a*) situation. It is called *Nilides* by *Juba*, *Neliducus* and *Nyfapis*, in the *Ptolemaic Table*. It is the *Oriental Marsh* of *Ptolemy*, and was not far from *Rapta*, now *Quiloa*, for that well informed geographer mentions a certain *Dioenes*, who went on a trading voyage to *India*, and, on his return, was overtaken near the Cape, now called *Gardefan*, by a violent storm from the NNE. which carried him to the vicinity of *Rapta*, where the natives assured him, that the *marshes* or *lakes* whence the *Nile* issued were at no considerable distance.

The old *Egyptians* themselves, like the present *Hindus*, (who are apt, indeed, to place reservoirs for water, of different magnitudes, on the high grounds of most countries,) had a notion of a receptacle which supplied the *Nile* and other great *African* rivers, for the Secretary of *MINERVA*'s temple informed *Herodotus*, that the holy river proceeded from deep lakes between the mountains of *Crobs* and *Mops*, that part of its waters took their course toward the north, and the rest to the south through *Ethiopia* but either the secretary himself was not perfectly master of the subject, or the historian misunderstood him, for *Herodotus* conceived that those lakes were close to *Syene*, (*b*.) and, as he had been there himself without seeing any thing of the kind, he looked upon the whole account as a fiction. It is not improbable, however, that the lakes were said by the secretary to be near the country of *Azania* or *Azen*, which was mistaken for *Syene*, in *Egypt* called *Uswán* or *Ajwán*.

From this idea of a general reservoir, the ancients concluded that the *Niger* also had its origin from the same lakes with the *Nile*, but JUBA acknowledged that the channels run underground for the space of twenty days' march, or about 300 miles, (a) In conformity to the relation of DIogenes, the marshy lakes were said by JUBA to lie near the Ocean, but he asserted positively, that the *Nile* did not immediately rise from them, adding, that it flowed through subterraneous passages for the space of several days' journey, and, on its re-appearance, formed another marshy lake, of still greater extent, in the land of the *Massefyh*, who were, perhaps, the *Mababáyashas* of the *Purín*s. The second lake corresponds in situation with the extensive marshes from which the *Nahr'labyad* of the *Arabs*, or the *White River*, has its source, according to MR BRUCE, who places the lake about the 3d or 4th degree of north latitude. It is named *Cewir* in the maps, and is noticed by the *Nubian* geographers.

The word *Nisaptis*, which is applied, as before mentioned, to the first lake, may be derived from *Nisápati*, or the *Lord of Night*, a title of the God LUNUS. The whole country, indeed, with its mountains, and most of its rivers, had appellations relating to the moon, and we find in it several smaller rivers, which we cannot now ascertain, with the names *Rajanī*, or Night, *Cubū*, or the Day after the Conjunction, *Anumati*, or that after the Opposition, *Rād*, or the full Orb of the Moon, and *Sirivād*, or first visible Crescent. The inhabitants of that region are by PTOLEMY called *Mafite*, by JUBA, as we before observed, *Massefyh*, and in the Maps, *Maffi*, or *Massagueros*. In all those denominations the leading root *Maffa*, whatever be its meaning, is clearly distinguishable, and, as there were people with a similar name in *Man-*

Ritania, PLINY and his followers make JUBA alledge, that the lakes just mentioned were in that country but it is hardly possible that JUBA could have made such a mistake with respect to a country so near his own. nor can we refrain from observing, that PLINY was an indifferent geographer, and that his extracts and quotations are in general very inaccurate

The second lake, or marsh, appears to be the *Padmavana* of the *Sanskrit* legends, and that word implies, that it abounded with the *Nymphaea*, but it was probably the *Padma*, distinguished by the epithet of *Coti-patra*, or with *ten millions of petals*, which I conceive to be the *Ensete* of MR BRUCE, who mentions it as growing there in the greatest abundance. It is true, that the *Ensete* has no botanical affinity with the *Nymphaea*, but the *Hindus* were superficial botanists, and gave the same appellation to plants of different classes, as the word *Lotos*, indeed, was applied by the *Greeks* to the common *Padma*, or water lily, and to the celebrated fruit of the *Lotopagis*, which had no relation to it. The usual number of petals on the *Nymphaea Lotos* is *fifteen*, but some have only *eight*. The character of the genus, indeed, is to have *numerous petals*, and the *Sanskrit* epithet *Sabasra-patra*, or *thousand-petalled*, is applied in dictionaries to the common *Padma* but nothing could have justified such an epithet as *Coti-patra*. On some *Egyptian* monuments we find *Isis* reclined among the leaves of a plant, supposed to be the *Cadali*, or *Mauza*, which has been changed into *Musa* by LINNAEUS, but MR BRUCE has exploded that error, and shewn that the plant was no other than his *Ensete*. The *Indian* Goddess, indeed, sits in the character of *YACSHINI-dēvi*, on the leaves of the *Mauza*, but in that form, which was an *avāntara*, or lower incarnation, she never has the majesty or the title of *PADMA*. It is expressly said in the *Purāṇas*, that, on the banks of the *Cūlī* river, *PADMA* resides in the *Coti-patra*,

a flower

a flower unknown in *India*, and consequently ill described in the *Sanskrit* books. Where *PLINY* mentions the *Lotos* of the *Nile*, he uses a phrase very applicable to the *Erythea*, "foliis densâ congerie stipatis," and, though he adds a few particulars not agreeing with Mr *BREWER*'s full description of that plant, yet *PLINY*, being a careless writer, and an inaccurate botanist, might have jumbled together the properties of two different flowers.

The before-named country of *Chandri-jībhān* was thus denominated from a fable in the *Purāns*. The God *Chandra*, or *LUNA*, having lost his sex in *India*, became *Chandri*, or *LUNA*, who concealed herself in the mountains near the lakes of which we have been treating. She was there visited by the Sun, and by him had a numerous progeny, called *Puhandas*, from *Puhna*, an *islet* or *sand-bank*, who dwelt near the rivers that ran from those mountains, and acknowledged no ruling powers but the Sun and Moon.

Sharma-jībhān, of which we cannot exactly distinguish the boundaries, but which included *Ethiopia* above *Egypt*, as it is generally called, with part of *Abyssinia* and *Azam*, received its name from *SHARMA*, of whom we shall presently speak. His descendants, being obliged to leave *Egypt*, retired to the mountains of *Ajagar*, and settled near the Lake of the Gods. Many learned Brāhmens are of opinion, that by the Children of *SHARMA* we must understand that race of *Devatās* who were forced to emigrate from *Egypt* during the reigns of *SANI* and *RA'HU*, or *SATURN* and *TYPHON*. They are said to have been a quiet and blameless people, and to have subsisted by hunting wild elephants, of which they sold or bartered the teeth, and even lived on the flesh. They built the town of *Rāpavati*, or the *beautiful*, which the Greeks called

called *Rapta*, and thence gave the name of *Rapta* or *Rapta* to its inhabitants. It is generally supposed, that only one town in that country was name *Rapta*; but STEPHANUS of *Byzantium* positively affirms, that there were two of the name, (a) one, the capital of *Ethiopia*, and another, a small town or village, consisting of huts inhabited by sea-faring men, near a harbour at the mouth of the river *Rapta*. The former is the *Rēpavati* of the *Purānas*, in which it is declared to have stood near the *Cālī*. We cannot perfectly ascertain its position, but it was, I think, situated near the southern extremity of the Divine Lake, now called *Zambre*, or *Maram*; for PTOLEMY places the *Rapta* about the sources of the *Nile*, that is thirteen or fourteen degrees from the city, whence, as he supposes, that people was named. No further description can justly be expected of a country so little known but we may observe, that the *Nubian* geographer mentions a mountain near the Lake of the Gods, called the Mount of the *Painted Temple*, because, probably, it contained hieroglyphicks cut on stone, and painted, such as are to be seen at this day in some parts of *Egypt*. He adds, that on the bank of the second lake was the statue of a certain *Masba*, supposed to be his body itself petrified as a punishment for his crimes.

I It is related in the *Padma-purān*, that SATYAVĀTA, whose miraculous preservation from a general deluge is told at length in the *Māīya*, had three sons, the eldest of whom was named JYĀPETI, or *Lord of the Earth*. The others were C'HARMA and SHARMA, which last words are, in the vulgar dialects, usually pronounced *C'hem* and *Sham*, as we frequently hear *Kishn* for

^a STEPH. BYZANT on the word *Rapta*.

CRI'SHNA The royal patriarch (for such is his character in the *Purâns*) was particularly fond of Jyâpeti, to whom he gave all the regions to the north of *Himâlaya*, or the *Snowy Mountains*, which extend from sea to sea, and of which *Caucasus* is a part. To SHARMA he allotted the countries to the south of those mountains. But he cursed C'HARMA, because, when the old monarch was accidentally inebriated with a strong liquor made of fermented rice, C'HARMA laughed, and it was in consequence of his father's imprecation that he became a slave to the slaves of his brothers.

The children of SHARMA travelled a long time, until they arrived at the bank of the *Nile* or *Calî* and a Brâhmaen informs me (but the original passage from the *Purân* is not yet in my possession) that their journey began after the building of the *Padmâ-mandira*, which appears to be the tower of *Babel*, on the banks of the river *Cumudvati*, which can be no other than the *Euphrates*. On their arrival in *Egypt*, they found the country peopled by evil beings, and by a few impure tribes of men, who had no fixed habitations; their leader, therefore, in order to propitiate the tutelary divinity of that region, sat on the bank of the *Nile*, performing acts of austere devotion, and praising PAONIA'-dêvî, or the Goddess residing on the Lotos. PADMA' at last appeared to him, and commanded him to erect a pyramid, in honour of her, on the very spot where he then stood. The associates began the work, and raised a pyramid of earth two crôs long, one broad, and one high, in which the Goddess of the Lotos resided, and from her it was called *Padmâ-mandira* and *Padma-mâ'ba*. By *mandira* is meant a temple or palace, and by *mâ'ba*, or *mer'ba*, a college or habitation of students; for the Goddess herself instructed SHARMA and his family in the most useful arts, and taught them the *Yacsha-lîpi*, or writing of the *Yacshas*, a race of superior beings, among whom CUVERA was the chief. It does not

clearly appear on what occasion the *Sarmicas* left their first settlement, which had so auspicious a beginning; but it has before been intimated, that they probably retreated to *Ajagara*, in the reigns of *SANI* and *RA'NU*, at which time, according to the *Purâas*, the *Dévatâs*, among whom the *Sarmicas* are reckoned, were compelled to seek refuge in the mountains. A similar flight of the *Devatâs* is, however, said to have been caused by the invasion of *DEVA-NAHUSH*, or *DIONYSIUS*.

The *Padma-mandir* seems to be the town of *Byblos*, in *Egypt*, now called *Babel*, or rather that of *Bâbel*, from which original name the *Greeks* made *Byblos*. It stood on the canal, which led from the *Balbitine* branch of the *Nile* to the *Phatmetic*, a canal which is pretty well delineated in the *Peutingerian Table* and it appears that the most southern *Iseum* of that table is the same with the *Byblos* of the *Greeks*. Since this mound or pyramid was raised but a short time after that on the *Cumudvati*, and by a part of the same builders, and since both have the same name in *Sanskrit*, whence it should seem that both were inscribed to the same divinity, we can hardly fail to conclude, that the *Padmâ-mandiras* were the two *Babels*, the first on the *Embrates*, the second on the *Nile*. The old place of worship at *Byblos* was afterwards much neglected, being scarce mentioned by ancient authors. *STEPHANUS* of *Byzantium* says it was very strong, and it was there, according to *THUCYDIOES*, and to the *Perfeks* of *CTESIAS*, quoted by *PHOTIUS*, that *INARIS*, king of *Lybia*, with his *Asbenian auxiliaries*, and the *Egyptians*, who were attached to him, sustained a siege of a year and a half against the whole *Persian* army, under *MEGABYZUS* but, as it stood in low marshy ground, it probably owed its chief strength to the vast mound of earth mentioned in the *Purâas*, the dimensions of which are, however, (as is usual in poetical descriptions,) much exaggerated. One

of the three grand branches of the *Nile*, in the vicinity of *Padmá-mat'b*, is called *Patmeti* by *PTOLEMY*, and *Pbalmi* by *DIODORUS* the *Sicilian*. Both seem derived from the *Sanskrit* corrupted for *Padma* is in many Indian dialects pronounced *Padm*, or *Podm*, and in some *Patma*. To the same root may be referred the appellation of the nome *Pbtbembabhi*, or *Pbtbemmuhi*, as it is also written, for the *Padmá-mat'b* was in the nome *Prosopitis*, which once made a part, as it evidently appears, of the nome *Pbtbembutbi*, though it was afterwards considered as a separate district, in consequence of a new division. *Prosopitis*, most certainly, is derived from a Greek word, and alludes to the summit of the *Delta*, seen on a passage down the *Nile* from the city of *Mempbis*, but *Potamisis*, which was applied to *Egypt* itself, can hardly mean any more, than that the country lies on both sides of a large river, which would not be a sufficient discrimination to justify that common etymology and we have already hazarded a conjecture that *Potamos*, as a proper name of the *Nile*, relates to the holy and beautiful *Padma*.

Of the *Yacsha* letters, before mentioned, I should wish to give a particular account, but the subject is extremely obscure. CRINITIS asserts, that the *Egyptian* letters were invented by *Isis*, and *Isis* on the *Lotos*, was no other, most certainly, than *PADMA'DEV'*, whom the *Puránas* mention as the instructress of the *Sharmicas* in the *Yacsha* mode of writing. According to the *Bráhmens*, there are written characters of three principal sorts, the *Devanágari*, the *Pájáchí*, and the *Yácfí*, but they are only variations of the same original elements. The *Devanágari* characters are used in the northern, the *Pájáchí* in the southern, parts of *India*, and the *Yácfí*, it is said, in *Butan*, or in *Tibet*. The *Pandits* consider the *Devanágari* as the most ancient of the three, but the beauty and exquisite perfection of them renders this very doubtful, especially

as *Atra*, whom they suppose to have received them from the Gods, lived a long time, as they say, in the countries bordering on the *Cārī*, before he repaired to the *Dēvānīca* Mountains near *Cābul*, and there built the town of *Dēvanāger*, from which his system of letters had the name of *Dēvanāgarī*. As to the *Pājācha* characters, they are said to have been invented by the *Pālis*, or Shepherds, who carried them into *Ethiopia*. The *Yaccha* writing I had once imagined to be a system of hieroglyphicks, but had no authority from the *Parānas* to support that opinion, and I dropped it on better information, especially as the *Brāhmens* appear to have no idea of hieroglyphicks, at least according to our conception of them.

The *Sharmicas*, we have observed, rank among the *Dēvatār*, or Demi-gods, and they seem to have a place among the *Yacchas* of the *Purāns*, whom we find in the northern mountains of *India*, as well as in *Ethiopia*. The country in which they finally settled, and which bore the name of their ancestors, was in *Sanc'ha-dwip*, and seems to comprise all that subdivision of it, which, in the *Bhāgavat*, and other books, is called *Cusba-dwip without*.

Several other tribes, from *India* or *Perſia*, settled afterwards in the land of **SHARMA**. The first and most powerful of them were the *Pālis*, or Shepherds, of whom the *Purāns* give the following account.

II. *Kāshu*, surnamed *Pingāccha*, the son of *UGRA*, lived in *India* to the south-west of *Cābi*, near the *Naravindbyā* river, which flowed, as its name implies, from the *Vindhyā* mountains. The place of his residence is the

south of those hills was named *Pali*, a word now signifying a large town and its district, or *Pâli*, which may be derived from *Pâla*, a herdsman or shepherd. He was a prince mighty and warlike, though very religious but his brother TA'RAC'HYA, who reigned over the *Vindhyas* mountaineers, was impious and malignant, and the whole country was infested by his people, whom he supported in all their enormities. The good king always protected the pilgrims to *Câsi* or *Varâna* in their passage over the hills, and supplied them with necessaries for their journey, which gave so great offence to his brother, that he waged war against *Yrs'hu*, overpowered him, and obliged him to leave his kingdom. But MAHA'DE'VA, proceeds the legend, assisted the fugitive prince, and the faithful *Pâlis*, who accompanied him, conducting them to the banks of the *Câsi*, in *Sanc'ha-dwîp*, where they found the *Sharmicas*, and settled among them. In that country they built the temple and town *Punyavati*, or *Punya-nagarî*, words implying holiness and purity, which it imparts, say the *Hindus*, to zealous pilgrims. It is believed at this day to stand near the *Câsi*, on the low hills of *Mandara*, which are said, in the *Purânas*, to consist of red earth, and on those hills the *Pâlis*, under their virtuous leader, are supposed to live, like the *Gandharvas*, on the summit of *Himâlaya*, in the lawful enjoyment of pleasures, rich, innocent, and happy, though intermixed with some *Mlech'has*, or people who speak a barbarous dialect, and with some of a fair complexion. The low hills of *Mandara* include the tract called *Meroe*, or *Merboe*, by the *Greeks*, in the centre of which is a place named *Mandara* in the *JESUITS'* Map, and *Mandera* by Mr BRUCE, who says, that of old it was the residence of the shepherds, or *Pâli* kings. In that part of the country the hills consist of red earth, and their name *Mandara* is a derivative from *mand*, which, among other fenses, means sharp pointed, from the root *mand*, which may have the sense of *bhid*, to cut so that *Mandara-parvata* signifies a mountain dividing the waters, and forcing them to run different ways, an etymology confirmed by Mr. BRUCE

in his description of *Meroe*, where he accounts for its being called an island. The compound *Puryanagari*, or *City of Virtue*, seems to imply both a seat of government, and a principal temple with a college of priests it was, therefore, the celebrated city of *Meroe*, a word which may be derived from *MERHA* (*vidyārtībhāum grīham*, the *mansion of students*, as it is explained in the dictionaries,) or from *MRARA*, of whom we shall presently speak.

To the king of the *Pālis*, named also *Pali*, from those whom he governed, *MAHA'DE'VA* gave the title of *NARAIITA*, having appointed him to guard the *narris*, or south west, and though he was a *Paśāccha* by birth, or naturally bloody-minded, yet he was rewarded for his good disposition, and is worshipped in *India* to this day, among the eight *Dic-pālas*, or guardians of as many quarters, who constantly watch, on their elephants, for their security of *Cālī*, and other holy places in *Jambu-dwipa* but the abode of his descendants is declared, in the *Purānas*, to be still on the banks of the *Cālī* or *Nilī*. One of his descendants was *LUBDHACA*, of whom an account will be given in a subsequent section, and from *LUBDHACA* descended the unfortunate *Li'NA'SU*, (not the bard *HERIDATTA*, who had also that name, and who will be mentioned hereafter more particularly,) but a prince whose tragical adventures are told in the *Rājatīti*, and whose death was lamented annually by the people of *Egypt*. All his misfortunes arose from the incontinence of his wife *Yo'GA*, *BURAST'A*, or *Yo'GA'CASHTA* and his son *MAHA'SURA*, having, by mistake, committed incest with her, put himself to death, when he discovered his crime, leaving issue by his lawful wife. May we not reasonably conjecture, that *LUBDHACA* was the *LABDACAS*, *Li'NA'SU*, the *LAIUS*; and *Yo'GA'CASHTA*, the *JOCASTA*, of the *Greeks*? The word *Yadupa*, from which *ŒDIPUS* may be derived, signifies King of the *Yadu* family, and might have been a title of the unhappy *MAHA'SURA*.

This account of the *Páli*s has been extracted from two of the eighteen *Paránas*, entitled SCANDA, or the God of War, and BRAHMA'NDA, or the Mundane Egg. We must not omit, that they are said to have carried from India not only the *Ashvá-véda*, which they had a right to possess, but even the three others, which they acquired clandestinely; so that the four books of ancient Indian scripture once existed in Egypt, and it is remarkable, that the books of Egyptian science were exactly four, called the books of *Harmónia*, or HERMES, which are supposed to have contained subjects of the highest antiquity, (a) NONNUS mentions the first of them as believed to be coeval with the world, and the Bráhmens assert, that their three first *Vedas* existed before the creation.

The *Páli*s remaining in India have different names. Those who dwell to the south and south-west of Benáres, are, in the vulgar dialects, called *Páli*s and *Bbils*, in the mountains to the north-east of that city, they are in *Say/crit* named *Cirátas*, and toward the *Indus*, as I am informed, a tribe of them has the appellation of *Haritas*. They are now considered as outcasts, yet are acknowledged to have possessed a dominion in ancient times from the *Indus* to the eastern limits of Bengal, and even as far as Siam. Their ancestors are described as a most ingenious people, virtuous, brave, and religious; attached particularly to the worship of MAHA'DEVA, under the symbol of the *Linga* or *Pballus*, fond of commerce, arts, science, and using the *Pájñchî* letters, which they invented. They were supplanted by the *Ráyaputras*, and their country, before named *Pálišt'hán*, was afterwards called *Ráyaputana* in the vulgar dialect of their conquerors. The history of the *Páli*s cannot fail to be interesting, especially as it will be found much connected with that of Europe, and I

(a) See 2 Bryant 150.

hope soon to be supplied with materials for a fuller account of them. Even their miserable remains in *India* must excite compassion, when we consider how great they once were, and from what a height they fell through the intolerant zeal and superstition of their neighbours. Their features are peculiar, and their language different, but perhaps not radically, from that of other *Hindus*. Their villages are still called *Pallis*. Many places, named *Palita*, or, more commonly, *Bbilata*, were denominated from them, and in general *Palli* means a village or town of *shepherds* or *herdsmen*. The city of *Irahu*, to the south of the *Vindhya* mountains, was emphatically styled *Palli*; and, to imply its distinguished eminence, *Sri-palli*. It appears to have been situated on or near the spot where *Bopál* now stands, and to be the *Saripalla* of *PTOLEMY*, which was called *Palibothra* by the *Greeks*, and, more correctly in the *Ptolemaic Table*, *Palipotra*, for the whole tribe are named *Paliputras* in the sacred books of the *Hindus*, and were indubitably the *Palibothri* of the ancients, who, according to *PLINY*, governed the whole country from the *Indus* to the mouth of the *Ganges* but the *Greeks* have confounded them and their capital city with the *Baliputras*, whose chief town, denominated from them, had also the name of *Rájagriha*, since changed into *Rajamahall*. As it was in the *Mandala*, or *circle*, of the *Baliputras*, it is improperly called by *PTOLEMY*, who had heard that expression from travellers, *Palibothra* of the *Mandalas*.

We have said, that *Ir'shu* had the surname of *Pingāsba*, or *yellow-eyed*, but in some dictionaries he is named *Pingāśā*, or *yellow as fine gold*, and in the track of his emigration from *India* we meet with indications of that epithet. The *Turkish* geographers consider the sea-coast of *Yemen*, says *Prince KANTEVIR*, as part of *India*, calling its inhabitants *yellow Indians*. The province of *Ghilan*, says *TEXEIRA*, has also the appellation of *Hindu'l Asfar*, or *Yellow India*,

and the Caspian itself is by the Turks called the Yellow Sea, (a) This appears to be the origin of the *Panchaea* tribes, in *Arabia*, *Egypt*, and *Ethiopia*, whose native country was called *Panchaea*, and the islands near it, *Panchaeas*; though Dionorus of *Sicily*, attempting to give a description, from EUHEMERUS, of *Panchaea*, or *Pungésa*, has confined it to an inconsiderable island near *Dwáraçá*, yet it was really *India* itself, as his description sufficiently shows and the place which he names *Oceanida*, is no other than old *Ságar*, at the mouth of the *Ganges*. The northern mountain, which he speaks of, is *Méru*, and the three towns near it are described in the *Puráns* with almost the same appellations.

ORUS, the shepherd, mentioned in ancient accounts of *Egypt*, but of whom few particulars are left on record, was, most probably, IR'SHU, the *Pallis*; whose descendants, the *Pingáchás*, appear to have been the *Phenician* shepherds, who once established a government on the banks of the *Nile*. The *Phenicians* first made their appearance on the shores of the *Erythrean* or *Red Sea*, by which we must understand the whole *Indian Ocean* between *Africk* and the *Malay* coasts, and the *Puráns* thus represent it, when they describe the waters of the *Arunódadhi*, as reddened by the reflection of solar beams from the southern side of mount *Sumérn*, which abounds with gems of that colour. Something of this kind is hinted by PLINTY, (b). It is asserted by some (and from several circumstances it appears most probable) that the first settlements of the *Phenicians* were on the *Perian Gulph*, which is part of the *Erythrean Sea*. JUSTIN says, that, having been obliged to leave their native country, (which seems from the context to have been very far eastward,) (a)

Müller, p 106

(b) Lib 6 Cap 29

they settled near the Assyrian Lake, which is the Persian Gulph, and we find an extensive district, named Palestine, to the east of the Euphrates and Tigris. The word *Palestine* seems derived from *Pályéhán*, the seat of the *Páhs*, or Shepherds, (a) The *Samaritans*, who before lived in that country, seem to have been a remnant of the *Páhs*, who kept themselves distinct from their neighbours, and probably removed for that reason to the *Palestine* on the shore of the *Mediterranean*, but, after their arrival in that country, they wished to ingratiate themselves with the *Jews* and *Poenicians*, and, for that purpose, claimed affinity with them, alledging, sometimes, that they were descended from JACOB, and at other times, that they sprang from *PINKHAS*, a word pronounced also *PINEAS*, and supposed (but, I think, less probably) to mean the son of AARON. Certainly, the *Jews* looked upon the *Samaritans* as a tribe of *Philistines*, for mount *Garizim* was called *Paltan* and *Peltan*. *TRE-MILLIUS*, in the *Wisdom of the Son of SIRACH*, writes *Palyéhbaea*, but in the *Greek* we find the *Philistines*, who reside on the mount of Samaria, (b) But let us return to *Palestine* in *Affrygia*.

Whether the posterity of *Pingúsha*, or the *Yellow Hindus*, divided themselves into two bodies, one of which passed directly into *Poenice*, and the other went along the *Arabian* shores to *Abissinia*, or whether the whole nation first entered the southern parts of *Arabia*, then crossed over to *Africk*, and settled in the countries adjacent to the *Nile*, I cannot determine, but we have strong reasons to believe, that some, or all of them, remained a considerable time on the coast of *Yemen*. The *Panebian* tribes in that country were considered as *Indians*. Many names of places in it, which ancient geographers mention, are clearly *Sanctist*, and most of those names are found at present in

India. The famed *Rhadamanthus*, to whom Homer gives the epithet *yellow*, and his brother *MINOS*, were, it seems, of *Pheenician* extraction. They are said to have reigned in *Arabia*, and were, probably, *Pals*, descended from *PINGA'CSHA*, who, as we have observed, were named also *Ciratas*, whence the western island, in which *MINOS*, or his progeny, settled, might have derived its appellations of *Curetis* (*a*) and *Crete*. In scripture we find the *Pelots* and *Kereths* named as having settled in *Palestine*; but the second name was pronounced *Keretis* by the Greek interpreters, as it is by several modern commentators; hence we meet with *Krita*, a district of *Palestine*, and at *Gaza* with a *JUPITER Cretanus*, who seems to be the *Critisvara* of the Hindus. In the spoken *Indian* dialects, *Palisa* is used for *Palls*, a herdsman, and the *Egyptians* had the same word, for their priests told Herodotus, that their country had once been invaded by *PHILITIUS*, the Shepherd, who used to drive his cattle along the *Nile*, and afterwards built the pyramids, (*b*) The *Phyllite* of *PROLEMY*, who are called *Bullots* by Captain R COVURT, had their name from *Bbilata*, which in *India* means a place inhabited by *Palls*, or *Bulls*. The ancient Shepherds made so conspicuous a figure in *Egypt*, that it is needless to expatiate on their history, and for an account of the Shepherds in or near *Abyssinia*, I refer to the *Travels* of Mr. BRUCE. Let us return to *Meroe*.

The writers of the *Puranas*, and of other books esteemed sacred by the *Hindus*, were far from wishing to point out the origin of mere cities, how distinguished soever in civil transactions: their object was to account

(*a*) *PLIN lib 4 cap 12* *Curetis* was named, according to *ANAXIMANDES*, from the *Ceretes* under their king *PHILISTIDES*

(*b*) *HEROD B 2 148*

for the foundation of temples and places of pilgrimage but it often happened, that several places of worship were in different periods erected at a small distance from each other, and, as the number of inhabitants increased round each temple, an immense town was at length formed out of many detached parts, though we are never told in the *Purâna*s, whether those consecrated edifices were contiguous or far asunder. This happened to *Mempis*, as we shall presently show, and it seems to have been the case with *Paryavati*, and with *Merba*, or *Mrîra*. Those words are written *Me'bâ* and *Mrîdâ*, but there is something so peculiar in the true sound of the *Nâgari* letters, *ta*, *t'ba*, *da*, *d'ba*, that they are generally pronounced, especially when they are placed between two vowels, like a palatal *ra*. The vowel *ri* has likewise a great peculiarity, and, as we before observed on the word *Kîshn* for *Crisna*, is frequently changed. Now the whole *Troglydytæa* was named *Midoë*, or *Mirboë*, and he who shall attentively consider the passage in *PLINY*, where the towns of *Midoë* and *Aſal* are mentioned, will perceive that they can be no other than *Meroe* and *Aſar*. This interchange of *ha* and *re* so exactly resembles the *Sanscrit*, that the name of *Meroe* seems more probably derived from *Mrîda*, than from *Methâ*, or a college of priests; especially as the *Pâlis* were almost exclusively attached to the worship of *Ma'ira*, or *Ma-hâ'de'va*. A place in *Pegu*, called *Mrîra* from the same deity, has, in *PTOLEMY*, the name of *Mareura*, and is now pronounced *Mero* by the natives.

According to the *Purâna*s, the residence of King *Yt* (who formerly ruled over Egypt and *Etiſop.a*) was on the banks of the *Câl* river, and had the name of *Mrîra*, or *Mrîra-fî'bân*, because its principal temple was dedicated to *Ma'ira* and his consort *MRINA'NI'*, or *PA'RVATI'*. Now, when we read in *STEPHANUS OF*

Byzantium, [that the fort of *Meruſium*, near *Syracuse*, was believed by some to have taken its name from *Meroë* in *Ethiopia*, we must understand, that it was named from a place of worship sacred to *Mārīa*, the chief *Ethiopian* divinity and the same author informs us, that *Meroeſſa Diana*, or *MIRESWARI Da'v'*, who is represented with a *crescent* on her forehead, was adored at *Meruſium* in *Sicily*. We may conclude, that her husband, *MIRESWARA*, was the God of *Meroe*, called a *barbarous deity* by the *Greeks*, who, being themselves unable to articulate his name, insisted that it was concealed by his priests. It has been imagined, that *CAMBYSES* gave the name of his sister and wife to *Meroe*, but it is very dubious, in my opinion, whether he penetrated so far as that city. In all events, he could have made but a short stay in the district, where, as he was abhorred by the *Egyptians* and *Ethiops*, it is improbable that a name imposed by him could have been current among them and, whatever might have been his first intention as to the name of his wife, yet, when he had killed her, and undergone a series of dreadful misfortunes in those regions, it is most probable that he gave himself no further trouble about her or the country.

In the book entitled *Saiva-ratnācara*, we have the following story of King *I'r*, who is supposed to have been *Mārīa* himself in a human shape, and to have died at *Meroe*, where he long reigned.

On the banks of the *Nilā* there had been long contests between the *Dēvatas* and the *Dasyas* but the latter tribe having prevailed, their king and leader *SANC'HA'SURA*, who resided in the ocean, made frequent incursions into the country, advancing usually in the night, and retiring before day to his submarine palace. Thus he destroyed or made captive many excellent princes, whose territories and people were between two fires, for, while *SANC'HA'SURA* was ravag-

ing one side of the continent, CRACACHA, king of *Crauncha-dwīga*, used to desolate the other, both armies consisting of savages and cannibals, who, when they met, fought together with brutal ferocity, and thus changed the most fertile of regions into a barren desert. In this distress the few natives, who survived, raised their hands and hearts to BHAGAVĀN, and exclaimed, ‘ Let him that can deliver us from these disasters be our King !’ using the word I’r, which re-echoed through the whole country. At that instant arose a violent storm, and the waters of the *Cālī* were strangely agitated, when there appeared from the waves of the river a man, afterwards called I’r, at the head of a numerous army, saying, “ *abbayans*,” or, *there is no fear*, and, on his appearance, the *Dasyas* descended into *Pātāla*, the demon SANC’HA’BURA plunged into the ocean, and the savage legions preserved themselves by a precipitate flight. The King I’r, a subordinate incarnation of MĀRA, re-established peace and prosperity through all *Sanc’ha-dwīga*, through *Barbaradēsa*, *Mifra-f’bān*, and *Arva-f’bān*, or *Arabia* the tribes of *Cūila-cēs* and *Hafyaulas* returned to their former habitation, and justice prevailed through the whole extent of his dominions. The place near which he sprang from the middle of the *Nilā* is named *Iṣṭa*, or *I’r-f’bān*, and the capital of his empire, *Mīra*, or *Mīra-f’bān*. His descendants are called *Ait*, in the derivative form, and their country, *Aitīya*. The king himself is generally denominated *Ait*, and was thus erroneously named by my *Pandit* and his friends, till, after a long search, they found the passage in which his adventure is recorded. The Greeks, in whose language *aetos* means an eagle, were very ready, as usual, to find an etymology for *Ait*. They admit, however, that the *Nile* was first called *Aetos*, after a dreadful swelling of the river, which greatly alarmed the *Ethiopians*, (a,) and thus is conformable to

(a) *Diod. Sic. B. 1.*

what we read in the *Sarva-ratnacara*. At the time of that prodigious inundation in the river, it is said that PROMETHEUS was King of *Egypt*, but PROMETHEUS appears to be no other than PRAMAT'HE'SA, a title of MRIRA, signifying Lord of the *Pramas'bas*, who are supposed to be the *five senses*; and in that character he is believed to have formed a race of men STEPHIANUS of *Byzantium* and EUSTATHIUS (*a*) assert, that *Aetus* was an *Indian* or *Hindu*, but, as nothing like this can be collected from the *Purānas*, they confounded, I imagine, I'T or AIT with YADU, of which I shall instantly speak. The chief station of I'T, or *Atam*, which could not have been very distant from *Mitra-sibān*, I take to be the celebrated place of worship mentioned by STRABO (*b*) and by DIODORUS, called *Avatum*, (*c*), which was near *Meroe*. It was the same, I believe, with the *Tatibus* of PTOLEMY, and *Tatu* of PLINY, situated in an island, which, according to MR BRUCE, is at present known by the name of *Kurgos*, and which was so near *Meroe* as to form a kind of harbour for it.

The origin of the *Yātus* is thus related. UGRASE'NA, or UGRA, was father of De'VACI', who was CRISHNA's mother. His son CANSĀ, having imprisoned him, and usurped his throne, became a merciless tyrant, and showed a particular animosity against his kinsmen the *Yādavas*, or descendants of YAOU, to whom, when any of them approached him, he used to say, *yatu*, or, *be gone*, so repeatedly, that they acquired the nickname of *Yātu*, instead of the respectable patronymick by which they had been distinguished. CANSĀ made several attempts to destroy the children of De'VACI'; but CRISHNA, having been preserved from his machinations, lived to kill the tyrant, and restore UGARASE'NA, who became a sovereign of the world. During the infancy, however,

(*a*) On Dionys' *Flagony*

(*b*) Strabo B. 17 p. 823

(*c*) Diod Sc B. 4 C. 1

of CRISHNA, the persecuted *Yádavas* emigrated from *India*, and retired to the mountains of the exterior *Cribo-dvip*, or *Abyssinia*. Their leader, YÁTU, was properly entitled YÁDAYENDRA, or Prince of *Yádavas*; whence those mountains acquired the same appellation. They are now called *Ourémidré*, or *Ardwemidré*, which means, we are told, the Land of *Arwe*, the first king of that country, (a;) but, having heard the true *Sanskrit* name pronounced, in common speech, *Yarevindra*, I cannot but suspect a farther corruption of it in the name of the *Abyssinian* mountains. Those *Indian* emigrants are described in the *Puráns* as a blameless, pious, and even a sacred, race, which is exactly the character given by the ancients to the genuine *Ethiopians*, who are said, by STEPHANUS of *Byzantium*, by EUSEBIUS, by PHILOSTRATUS, by EUSTATHIUS, and others, to have come originally from *India* under the guidance of AETUS, or YÉTU, but they confound him with King AIR, who never was there. YÁDABÍNDRA (for so his rule is generally pronounced) seems to be the wise and learned *Indian* mentioned in the *Psæchel Chronicle* by the name of ANDUBARIUS, (b) The king or chief of the *Yátus* is correctly named YÁTUPA, or, in the western pronunciation, JA'TUPA, and their country would, in a derivative form, be called, *Játupéya*. Now the writers of the Universal History assert, that the native *Ethiopians* give their country, even at this day, the names of *Itiopia* and *Zastiopia*. There can be little or no doubt that YÁTUPA was the King ÆTHIOPS of the Greek mythologists, who call him the son of VULCAN, but, according to the *Puráns*, that descent could not be ascribed to YÁTU, though it might, perhaps, to King I'R, for it will be shown, in a subsequent part of this Essay, that the VULCAN of *Egypt* was also considered by the *Hindus* as an *avántara*, or subordinate incarnation of MAHA'DEVA.

Not only the land of *Egypt*, and the countries bordering on the *Nile*, but even *Africa* itself, had formerly the appellation of *Aeria*, from the numerous settlements, I suppose, of the *Abirs*, or Shepherds, as they are called in the spoken *Indian* dialects. In *Sanskrit*, the true word is *Abhir*, and hence, I conceive, their principal station in the land of *Gesben*, on the borders of *Egypt*, was named *Abaris* and *Avaris*, for *Gesbehà* itself, or *Ghesbayana*, means the abode of shepherds or herdsmen, and *Ghesba*, though it also signify a *Gopal*, or Cowherd, is explained, in *Sanskrit* dictionaries, by the phrase *Abhirapalli*, a town or village of *Abbiras* or *Pâlis*.

The mountains of *Abyssinia* have in *Sanskrit* the name of *Nisbadba*, and from them flowed the *Nanda*, (which runs through the land of *Pushpavesham* about the lake *Dembea*.) the Little *Crisná*, or *Tacazzé*, and the *Sanc'banágá*, or *Mareb*, of which three rivers we shall hereafter speak more particularly. Since the Hindus place another *Méru* in the Southern Hemisphere, we must not be surprised to find the *Nila* described by them as rushing over three ranges of mountains, which have the same names with three similar ranges over which the *Gangá*, in their opinion, forces its way, before it enters the plains of *India*. Those mountains are the *Himálaya*, or, seat of snow, the *Nisbadba*, and the *Hémacúta*, or with a golden peak. The Hindus believe that a range of *African* hills is covered with snow the old *Egyptians*, *Greeks*, and *Romans* believed the same thing, and modern travellers assert, that snow falls here and there in some parts of *Africa* but the Southern *Himálaya* is more generally called *Sitânta*, which implies the end, or limit, of cold. On the Northern *Himálaya* is the celebrated lake *Mânyasaras*, or *Mónasarovara*, near *Suméru*, the abode of *Gods*, who are represented sometimes as reclining in their bowers, and sometimes as making aerial excursions in their *Yimásas*, or heavenly cars. Thus on,

or within, the Southern *Himálaya*, we find the Lake of the Gods, which corresponds with that in the north; with this difference, that the existence of the southern lake cannot be doubted, while that of the northern may well be called in question, (unless there be such a lake in the unknown region between Tibet and the high plains of *Bokbára*,) for what the *Sannýásis* call *Mánaśarovar* is, in truth, the *Vindhyávaras* of the *Puráns*. Beyond the Southern Lake of the Gods is another *Mérk*, the seat also of divinities, and the place of their airy jaunts, for it is declared in the *Puráns*, as the *Brábhmans* inform me, that within the mountains, towards the source of the *Nilá*, there are delightful groves, inhabited by deities, who divert themselves with journeying in their cars from hill to hill. The Greeks gave to that Southern *Mérk* the appellation of Οὔρος Ὑψηλός, in allusion to the *Vimáns*, or *celestial cars*, but they meant a range of hills, according to PLINY and AGATHEMERUS, (a,) not a single insulated mountain. PLINY, who places that mountainous tract in the south of *Ethiopia*, makes it project a great way into the southern ocean. Its western limit is mentioned by PTOLEMY; and the *Nubian* geographer speaks of all the three ranges. By the *Chariot of the Gods* we are to understand the lofty grounds in the centre of the African peninsula, from which a great many rivers, and innumerable rivulets, flow in all directions. Fires were constantly seen at night on the summit of those highlands, and that appearance, which has nothing very strange in it, has been fully accounted for by modern travellers.

We come now to the *Háyásilas*, or *Habábis*, who are mentioned, I am told, in the *Puráns*, though but seldom, and their name is believed to have the following etymology. C'HARMA, having *laughed* at his father SATYAVRA'TA,

(a) Plin 1 6. c 30. 1 5 c 1 1 2 c. 106 Agathem B. 2 ch 9

who had, by accident, intoxicated himself with a fermented liquor, was nicknamed *Háfyasila*, or the *Laugber*: and his descendants were called from him *Háfyasilas* in *Sanskrit*, and in the spoken dialects, *Hafyas*, *Hanselis*, and even *Habafus*, for the *Arabick* word is supposed by the *Hindus* to be a corruption of *Háfyas*. By those descendants of C'HARMA they understand the African Negroes, whom they suppose to have been the first inhabitants of *Abyssinia*, and they place *Abyssinia* partly in the *dvipa* of *Cufba*, partly in that of *Sanc'ba Proper*. Dr. Pocock was told at the Cataracts, that beyond them, or in the exterior *Cufba-dvip*, there were seven mountains, and the *Brâhmens* particularly affect that number. Thus they divided the old continent into seven large islands, or peninsulas, and in each island we find seven districts, with as many rivers and mountains. The following is the *Paurân*: division of *Cufba-dvip*, called exterior, with respect to that of *Jambu*.

DISTRICTS	MOUNTAINS	RIVERS,
'Apyâvana	<i>Pushpavaterba.</i>	<i>Nandâ</i>
Paribhadra	<i>Cumudadri</i>	<i>Rajenî</i>
Déververba.	<i>Cundâdri.</i>	<i>Cubû</i>
Ramanaca	<i>Vamadéva</i>	<i>Sarifwall</i>
Sumanasa	<i>Satalâringa.</i>	<i>Sinvalî</i>
Surôchana	<i>Sarefa.</i>	<i>Anumatî</i>
Avyayâta.	<i>Sabastrâfruti.</i>	<i>Râcâ.</i>

It seems unnecessary to set down the etymology of all these names, but it may not be improper to add, that *Satalâringa* means *with a hundred peaks*, and *Sabastrâfruti*, *with a thousand streams*.

Between the exterior *Cufba-dvip* and *Sanc'ba Proper* lies, according to the *Purân*, on the banks of the *Nilâ*, the country of *Barbara*, which includes,

therefore, all the land between Syene and the confluence of the Nile with the Tacazzë, which is generally called *Barbara* and *Barbar* to this day, but, in a larger sense, it is understood by the *Paurâmis* to comprise all the burning sands of Africa *Barbara-déja*, which answers to the *Laca arida et ardentia* mentioned by PLINY as adjacent to the *Nile*, was a fertile and charming country before it was *burned*, according to the *Hindu* legends, which will be found in a subsequent section; first, by the approach of SU'RYA, or the Sun, and afterwards by the influence of SANI, or *Saturn*. Its principal city, where *Barbaréswara* had a distinguished temple, was called *Barbara-sibâu*, and stood on the banks of the *Nile*. The *Tamorâja*, or Children of TAMAS, resided in it, and it is most probably the town of TAMA, which PLINY places on the eastern bank of the *Nile*, an hundred and twenty-nine Roman miles above Syene, (a)

The crude noun *Tamas*, in the first case *Tamab*, and *Tamô* before certain consonants, means *darkness*, and it is also a title of SANI, whose descendants are supposed to have lived in *Barbara*, and are represented as an ill-clothed, half-starved race of people, much like the present inhabitants of the same country. The following fables appear to be astrological, but might have had some foundation in history, as the *Hindu* regents of planets were, in truth, old Philosophers and Legislators, whose works are still extant.

TAMAH, or SATRY, had two wives, ST'HAVIRA' and JARAT'HA', whose names imply *age* and *decrepitude*. By the former he had seven sons, MÂTYL, CA'LA, DA'IA, ULCA, GHORA, ADHAMA, CAN'TACA, by the latter only two, MA'NDYA and GULICA. The sons of MA'NDYA were AS'OBHA, ARISHT HA, GULMA, PLI'HA those of GULICA were GAD'HA and GRAHILA.

(a) Plin lib 6 cap. 29.

They were all abominable men, and their names denote every thing that is horrid. It is expressly said in the *Purânas*, that TÂMAH was expelled from Egypt exactly at the time when ARAMA, a grandson of SATYAVRATA, died, that his children retired into *Barbara*, and that his grandson GULVA reigned over that country when it was invaded by CAPENASA, who will presently appear, beyond a doubt, to be CEPHEUS. The Tamavansos are described as living in *Barbara Proper*, which is now called *Nubia*, and which lay, according to the Indian geography, between the *dwipas* of SANC'Hî and of CI SHIA without but the other parts of *Barbara*, toward the mouths of the *Nile*, were inhabited by the children of RA'HU, and this brings us to another astronomical tale, extracted from a book entitled *Chintamâni*.

RA'HU is represented, on account of his tyranny, as an immense river-dragon, or crocodile, or rather a fabulous monster with four talons, called *Grabe*, from a root implying *violent seizure*. The word is commonly interpreted *hanger*, or *spark*, but in some dictionaries it is made synonymous to *nacra*, or *crocodile*, and in the *Purânas* it seems to be the creature of poetical fancy. The tyrant, however, in his human shape, had six children, DHUWAJA, DHU'MRA, SINHA, LAGL'D'A, DAND'A, and CARRAVA, (which names are applied to comets of different forms,) all equally mischievous with their father. In his allegorical character, he was decapitated by VISHNU his lower extremity became the *Citu*, or *dragon's tail*, and his head, still called *Rahu*, the *ascending node* but the head is supposed, when it fell on earth, to have been taken up by PIT'HI'NAS, or PIT'HI'N, and by him placed at *Ribu-f'bâu*, (to which the Greeks gave the name of *Hieropolis*), where it was worshipped, and gave oracular answers, which may be the origin of the speaking heads, mentioned by Jewish writers as prepared by magick. The posterity of RA'HU were from him

thus denominated *Grábas*, and they might have been the ancestors of those *Grau*, or *Greeks*, who came originally from *Egypt*. It is remarkable that Hesiod, in his *Theogony*, mentions women in *Africa* named *Gráas*, who had fine complexions, and were the offspring of *Phoreis* and *Ceto*. The *Grábas* are painted by the writers of the *Puráns* in most unfavourable colours, but an allowance must be made for a spirit of intolerance and fanaticism. *Rahu* was worshipped in some countries, as *HAILAL*, or *LUCIFER*, (whom in some respects he resembles,) was adored in the eastern parts of *Egypt*, and in *Arabia*, the *Stony* and the *Desert*, according to *Jerom*, in the life of *HILARION*, but though we must suppose that his votaries had a very different opinion of the *Grábas* from that inculcated by the *Hindus*, yet it is certain that the *Greeks* were not fond of being called *Graus*, and very seldom gave themselves that appellation.

The sandy deserts in *Egypt*, to the east and west of the *Nile*, are considered by the *Puráns* as part of *Barbara*; and this may account for what *Herodotus* says of the word *Barbaros*, which, according to him, was applied by the *Egyptians* to all who were unable to speak their language, meaning the inhabitants of the Desert, who were their only neighbours. Since the people of *Barbara*, or Children of *SATUR*, were looked upon as a cruel and deceitful race, the word was afterwards transferred to men of that disposition, and the *Greeks* who lived in *Egypt*, brought the appellation into their new settlements, but seem to have forgotten its primitive meaning.

On the banks of the *Nilé* we find the *Crisina-giri*, or Black Mountain of *Barbara*, which can be no other than the black and barren range of hills which Mr. *Bruee* saw at a great distance towards the *Nile* from *Tarforwey*. In the caves of those mountains lived the *Tamavasas*, of whom we shall speak.

speak hereafter Though the land of *Barbara* be said, in the *Purâns*, to lie between the *dvîpas* of *CUSHA* and *SANC'HA*, yet it is generally considered as part of the latter The *Nile*, on leaving the burning lands of *Barbara*, enters the country of *SANC'HA Proper*, and forces its way through the *Hemacuta*, or Golden Mountains, an appellation which they retain to this day The mountain called *Pancbrytos* by the *Greeks*, was part of that range which is named *Ollak* by the *Arabs* And the *Nubian* geographer speaks of the Golden Mountains, which are a little above *Oswân* Having passed that ridge, the *Nilâ* enters *Cardama-f'bân*, or the *Land of Mud*, which obviously means the fertile *Egyptian* valley so long covered with mud after every inundation The *Purânas* give a dreadful idea of that *muddy land*, and assert that no mortal durst approach it but this we must understand as the opinion formed of it by the first colonists, who were alarmed by the reptiles and monsters abounding in it, and had not yet seen the beauty and richness of its fertile state It is expressly declared to be in *Misra-f'bân*, or the *Country of a mixed People* for such is the meaning in *Sanskrit* of the word *Misra* Sometimes the compound word *Misra-f'bân* is applied to the Lower Egypt, and sometimes (as in the history of the wars of *Capena*) to the whole country, in which sense, I am told, the word *Gupta-f'bân* is used in ancient books, but I have never yet seen it applied so extensively *Agupta* certainly means *guarded on all sides*, and *Gupta*, or *guarded*, is the name of a place reputed holy, which was, I doubt not, the famed *Coptos* of our ancient geographers, who mentioned a tripartite arrangement of Egypt exactly conformable to the three divisions of *Misra-f'bân*, particularly recorded in the *Purânas* The first of them was *Tapôvana*, the Woodlands of *Tapas*, or *austere devotion*, which was probably Upper Egypt, or *Tbebâr* the second, *Misra Proper*, called also *Cantaca-défa*, or the Land of Thorns, which answers to the Lower Egypt, or *Heptanomis*, and the third, *Aranya* and *Atavâ*, or *The Forests*, emphatically so named, which were situated at the mouths of the *Nilâ*, and formed what we call the *Delta* The first inhabitants of Egypt found,

found, on their arrival, that the whole country about the mouths of the *Nile* was an immense forest, part impervious, which they called *Alevi*, part uninhabited, but practicable, which had the name of *Aranya*.

Tapóvana seems to have been always adapted to religious austerities; and the first *Cbryian* anchorites used to seclude themselves in the wilds of *Thebes* for the purpose of contemplation and abstracted piety. Thus we read, that the Abbot *PACHOMIUS* retired, with his disciples, to the wilderness of *Tabenna*, and there built a monastery, the remains of which are still visible, a day's journey below *Dendera*, near an island now called *Tabenna*, and, according to *SICARD*, a little below the site of *Thebes*. The country around *Dendera* is at this day covered with forests of *dauis*, a tree which some describe as a dwarf palm, and others as a *rbannus*, whence *Dendera* was called by *JUVENAL* the *body Tentyr*.

There can be no doubt, that *Tapóvana* was Upper Egypt, or the *Thebais*, for several places, the situation of which will be clearly ascertained in the course of this Essay, are placed by the authors of the *Puráns* in the forests of *Tapas*. The words *Thebas* and *Thebimtes* are both said to be derivatives of *Thebas*, but the second of them seems rather derived from *Tapvan* or *Tabenna*. So fond are nations of accommodating foreign words to their own language, that the *Arabs*, who have changed *Tapofris* into *Abú-Jaur*, or *Father of Israel*, have, in the same spirit, converted *Tabenna* into *Medinatabiná*, or the *Town of our Father*, though some of them call it *Medinal Tabu*, from *Tapo*, which an *Arab* could not pronounce. The principal place in this division was *Cardama* *ß'bal*, which is mentioned in the *Puráns* as a temple of considerable note. The legend is, that *Gupte'SWARA* and his consort had long

been concealed in the mud of the Nilâ, near Gupta-f'bân, or *Coptos*, but at length sprang from it, and appeared at Cardama f'bâlî, both wholly besmeared with mud, whence they had also the titles of CARDAME'SWARA and CAROAME'SWARI' We may observe, that *Gupta* signifies both *guarded* and *concealed*, and in either sense may be the origin of the word *Aegyptus*. As to *Cardama*, the canine letter is so often omitted in the vulgar pronunciation of *Sanskrit* words, that *Cardam*, or *Cadam*, seems to be the *Caomus* of the *Greeks*, and we shall hereafter illustrate this etymology with circumstances which will fully confirm it.

Mitra-f'bân is called also *Misra* and *Mifrena* in the sacred books of the *Hindus*, where it is said that the country was peopled by a mixed race, consisting of various tribes, who, though living for their convenience in the same region, kept themselves distinct, and were perpetually disputing either on their boundaries, or, which is most probable, on religious opinions. They seem to be the mingled people mentioned in Scripture. To appease their feuds, BRAHMA himself descended in the character of ISWARA, whence *Mifrešwara* became one of the titles. The word *Mifr*, which the *Arabs* apply to *Egypt*, and to its metropolis, seems clearly derived from the *Sanskrit*, but, not knowing its origin, they use it for any large city, and give the appellation of *Almifráñ* in the dual to *Cufa* and *Bafra*. The same word is also found in the sense of a boundary, or line of separation. Of *Mifr* the dual and plural forms in *Hebrew* are *Mifraim* and *Mifrím*, and the second of them is often applied in scripture to the people of *Egypt*. As to the *Mazér*, or more properly, *Malúr*, there is a difference of opinion among the translators of *ISAIAH* (a) In the old *English* version we find the passage, in which the word occurs, thus rendered, "the brooks of *defence* shall be emptied

(a) Chap. 19. v. 6 See 2 Kings, 18. 24

and dried up " but Bishop LOWTH, after some commentators, changes the *brooks of defence* into the *canals of Egypt*; and this is obviously the meaning of the Prophet; though the form of the word be more like the *Arabian* plural *Masjir* than any form purely *Hebrew*.

STEPHANUS of *Byzantium* says, that *Egypt* was called *Mysra* by the *Pheenians*, but surely this is a mistake for *Mysara*: according to SUIDAS, and EUSEBIUS, it had the name of *Mesraea*; but this I conceive should be written *Mesraea* from *Mysra*, which may be grammatically deduced from the root *Mysr*. The name *Canacia-deca* was given to *Mysra* for a reason similar to that of *Acanthus*, a town and territory abounding in thorny trees.

It was an opinion of the *Egyptian* priests, and of HERODOTUS also, when he was in their country, that the valley of *Egypt* was formerly an arm of the sea, which extended as far as the Cataracts. whether this opinion be well founded, is not now the question, but a notion of the same kind occurs in the Puráwas, and the Brábman account, in their way, for the alteration which they suppose to have happened. PRAMODA, they say, was a king of *Sanc'ba-dvip Proper*, and resided on the shore of the sea called *Sanc'bodadbi*. The country was peopled chiefly by *Mlech'bas*, or such as speak barbarously, and by savage *Rácfbas*, who are believed to be *evil demons*, nor was a single Brábman to be found in the kingdom, who could explain the *Védas*, and instruct mankind in their duties. This greatly afflicted the pious king, till he heard of a *Rishi*, or *holy man*, eminent in piety and in sacred knowledge, who lived in the country of *Barbara*, and was named Pi't'hi' or Pi't'hi'NASA, but was generally distinguished by the title of Pi't'hi'-RISHI. He was visited by PRAMODA in person, and, after many intreaties, prevailed on to accompany the king to *Sanc'ba-dvipa*, but, when he saw the incorrigible wickedness of its inhabitants,

tants, he was wholly in despair of effecting any good in that country, and passed the night without sleep. Early in the morning he repaired to the sea-shore, where, taking water and *Cuba-grasa* in his hand, he was on the point of uttering an imprecation on SANC'HO OADHI. The God of the Ocean perceived his intent, and threw himself trembling at his feet, asking humbly what offence he had committed. " Thy waters (answered the Saint) wash a " polluted region, into which the king has conducted me, but in which I can- " not exist give me instantly a purer piece of land, on which I may reside, " and perform the duties of religion " In that instant the sea of SANC'HO re- tured for the space of a hundred *yojanas*, or 492 miles, and left the holy man in possession of all the ground appearing on that dereliction. The king, on hearing of the miracle, was transported with joy, and caused a splendid palace to be built on an island in the territory newly acquired it was called *Pit'bi-f'bán*, because Pi'r'hi resided in it, having married the hundred daughters of PRA- MO'DA, and, on his beginning to read lectures on the *Véda*, he was in a short time attended by numerous disciples This fable, which had, probably, some foundation in truth, is related in a book entitled *Vishwásra-pracáya*, or a Declaration of what is most excellent in the Universe

Pit'bi-f'bán could not be very distant from *Cardama-f'bán*, or the city of Thebes, to which, according to the *Bráhmánda*, the Sage's daughter, from him called PAIT'HINI, used to go almost every day for the purpose of worshiping MAHÁO'EVA it seems, therefore, to be the *Pashtras* of Scripture, named *Pashubutes* by the Greek interpreters, and *Pashuris* by PLINY, from whose context it appears to have stood at no great distance from Thebes; and it was, certainly, in Upper Egypt It was probably the same place which PTOLEMY calls *Tat- byris*, either by mistake, or in conformity to the pronunciation of the *Ebsopians*,

who generally substituted the letter T for P, which they could not articulate. From the data in PTOLEMY it could not have been above six miles to the west of *S'bedes*, and was, therefore, in that large island formed by an arm of the *Nile*, which branches out at *Ermensh*, and rejoins the main body of the river at the *Mennonium*. According to the old *Egyptians*, the sea had left all Upper *Egypt* from the Cataracts as far as *Memphis*; and the distance between those two places is nearly that mentioned in the *Purâkas*, or about an hundred *yôjans*. The God of the Ocean, it seems, had attempted to regain the land which he had been forced to relinquish, but *Maha'de'va* (with a new title derived from *Nabhas*, or the *sky*, and *Iswâa*, or *lord*) effectually stopped his encroachments; and this was the origin of *Nabbab-f'bân*, or *Memphis*, which was the most distinguished among the many considerable places in *Misra*, and which appears to have consisted of several detached parts; as 1 *Ugra-f'bân*, so called from *UGRA*, the *UCHORES* of the *Greeks*, 2 *Nabbab*, the *Nopb* of Scripture, 3 a part named *Mysra*, 4. *Mobana-f'bân*, which may, perhaps, be the present *Mohannan*, and 5 *Laya-f'bân*, or *Laya-vati*, vulgarly pronounced *Layâti*, the suburb of *Lete*, or *Letopolis*.

Rodana-f'bân, or the Place of Weeping, is the island in the lake of *Mâribâ*, or *Moris*, concerning which we have the following *Indian* story in the *Viswâsara-prâcîsa*

Peli-suca, who had a power of separating his soul from his body, voluntarily ascended toward heaven, and his wife *Ma'ri'sha'*, supposing him finally departed, retired to a wilderness, where she sat on a hillock, shedding tears so abundantly, that they formed a lake round it, which was afterwards named *Astruit'r'ba*, or the Holy Place of Tears. Its waters were black, or very dark azure, and the same colour is ascribed by STRABO to those of *Moris*. Her son

son Ma'dhi, or Merhi; Suta had also renounced the world, and, seating himself near her, performed the same religious austerities. Their devotion was so fervent, and so long continued, that the inferior Gods began to apprehend a diminution of their own influence. At length Ma'ri'sha', dying *petrified*, or *desirous to be lord*, joined him among the *Vishnu-lîca*, or inhabitants of Vishnu's heaven, and her son, having solemnized the obsequies of them both, raised a sumptuous temple, in which he placed a statue of Vishnu, at the feet of his weeping mother; whence it acquired the appellation of *Rôdana-ß'bâna*. "They who make ablutions in the lake of *Afro-tirt'ba* (says the Hindu writer) are purified from their sins, and exempt from worldly affections, ascending after death to the heavenly Vishnu, and they who worship the Deity at *Rodana-ß'bâna*, enjoy heavenly bliss, without being subject to any future transmigration." No lake in the world, except that of Meris, corresponds, both in name and in circumstances, with that of *Afrutirt'ba*, and the island in the midst of it, which was also called *Mérbi*, or *Mérbi-ß'bâna*, from the name of the prince who consecrated it. The two statues on it were said by the Greeks to be those of Moiris and his Queen, but they appear from the Purânas to have been those of Vishnu, or Osiris, and of Ma'ri'sha', the mother of Moiris, unless the image of the God was considered in substance as that of the departed king, who, in the language of the Hindu theologians, was wholly absorbed in the divine essence. Three lakes, in the countries adjacent to the Nile, have names in the Purâns derived from *afro*, or tears. First, *Socâfro*, or Tears of Sorrows, another name for *Afro-tirt'ba*, or Meris, secondly, *Horbâfro*, or Tears of Joy, and, thirdly, *Anandafro*, or Tears of an inward pleasurable Sensation, to both which belong legendary narratives in the Purânas. One of the infernal rivers was named *Afrumati*, or the Tearful, but the first of them was *Vaitaranî*, where a boatman had been stationed to ferry over the souls of mortals into the region of YAMA. The word *vitarana*, whence

whence the name of the river is derived, alludes to the *farī* given for the passage over it.

III We must now speak particularly of *Sanc'ba dwipa* Proper, or the *Island of Shells*, as the word literally signifies, for *Sanc'ba* means a sea-shell, and is generally applied to the large buccinum. The Red Sea, which abounds with shells of extraordinary size and beauty, was considered as part of the *Sanc'bābdī*, or *Sanc'bādadī*, and the natives of the country before us wore large collars of shells, according to STRABO, both for ornament and as amulets. In the Purānas, however, it is declared, that the *dwipa* had the appellation of *Sanc'ba* because its inhabitants lived in shells, or in caverns of rocks hollowed like shells, and with entrances like the mouths of them. Others insist, that the mountains themselves, in the hollows of which the people sought shelter, were no more than immense heaps of shells thrown on shore by the waves, and consolidated by time. The strange idea of an actual habitation in a shell was not unknown to the Greeks, who represent young *NERITES*, and one of the two *CUPIDS*, living in shells on the coasts of that very sea. From all circumstances collected, it appears that *Sanc'ba-dwipa*, in a confined sense, was the *Troglodytica* of the ancients, and included the whole western shore of the Red Sea, but that, in an extensive acceptation, it comprised all *Africa*. The *Troglodytes*, or *inhabitants of caves*, are called in Scripture also *Sukim*, because they dwelt in *sucas*, or *dens*, but it is probable that the word *succa*, which means a *den* only in a secondary sense, and signifies also an *arbour*, a *booth*, or a *tent*, was originally taken, in the sense of a *cave*, from *Sanc'ba*, a name given by the first inhabitants of the *Troglodytica* to the rude places of shelter which they found or contrived in the mountains, and which bore some resemblance to the mouths of large shells. The word *Sanc'ba-*

dwipa has also in some of the *Parânas* a sense yet more limited, and is restrained to the land inhabited by the snake *Sanc'ba-nâgâ*, which included the mountains of *Habâb*, or the Serpent, and the *Abyffinan* kingdom of *Tigrî*. The same region is, however, sometimes called *Sanc'ba-vana*, and is reported to be a wonderfully fine country, watered by noble rivers and streams, covered with forests of the most useful and beautiful trees, and a hundred *yôjans* in length, or 492 miles; a dimension which corresponds exactly enough with a line drawn from the southern limit of *Tigrî* to the northern extremity of the *Habab Mountains*. It lay between the *Câlîch*, or *Câlâ*, and the sea. Its principal river was the *Sanc'ba-nâgâ*, now called *Mâreb*, and its capital city, near the sea-shore, where the royal snake resided, had the name of *Côlimi*: not far from which was a part of the mountain *Dyutimân*, or brilliant, so called from the precious metals and gems with which it abounded.

In the *Dberma-safra* both *Nâgas* and *Garudâs* are named as *races of men* descended from *ATRI*, concerning whom we shall presently speak more at large, but, in the language of mythology, the *Nâgas*, or *Uragas*, are large serpents, and the *Garudas*, or *Supernas*, immense birds, which are either the *Condors* of M. *BUFFON*, and *Vulture Griffons* of *LINNÆUS*, called *Rokhs* by the *Arabian* fabulists, and by *MARCO POLO*, or mere creatures of imagination, like the *Si'morg* of the *Perians*, whom *SADI* describes as receiving his daily allowance on the mountain of *Kéf*. Whatever be the truth, the legend of *Sanc'ba-nâgâ* and *Garudâ* is told in the ancient books of the *Hindus*.

The King of Serpents formerly reigned in *Chacragirs*, a mountain very far to the eastward, but his subjects were obliged by the power of *GARUD'A* to supply

ply that enormous bird with a snake each day. Their king at length refused to give the daily provision, and intercepted it himself, when it was sent by his serpentine race. This enraged GARUD'a, who threatened to devour the snakes and their king. nor would his menaces have been vain, if they had not all retired to *Sanc'ba-dwip*, where they settled in *Sanc'ba-vana*, between the *Cid* and the sea, near the station of *Swā'mi Ca'rtick'ya*, God of Arms, where they are supposed to live still un molested, because GARUD'a dares not approach the mansion of that more powerful divinity. "They (says the Indian writer) who perform yearly and daily rites in honour of *Sanc'ha-na'ga* will acquire immense riches" That royal serpent is also called *Sanc'ba-muc'ba*, because his mouth was like that of a shell; and the same denomination is given to the rocks on which he dwelt. The Mountains of Snakes are mentioned by the *Nubian Geographer*, and are to this day called *Hnbāb*, which in *Arabick* means a snake in general, according to JAUHERI, and a particular species of serpent, according to MAIDA'XI. The same region was named *Ophidia* by the Greeks, who sometimes extended that appellation to the whole *African* continent. The breath of *Sanc'ba-nagā* is believed by the *Hindus* to be a fiery poisonous wind, which burns and destroys animals and vegetables to the distance of a hundred *yoyans* round the place of his residence, and by thus hypothesis they account for the dreadful effects of the *samum*, or hot envenomed wind, which blows from the mountains of *Hnbāb* through the whole extent of the Desert. Two *Rishis*, or *Saints*, named AGASTI and ASTICA, undertook to stop so tremendous an evil. The first of them repaired for that purpose to *Sanc'ba-rana*, where he took his abode at a place thence called *Agastibhurana*, near the sea-shore, and not from *Coimtī*, but the gentle means to which he had recourse with the royal snake proved ineffectual. ASTICA, by harsher measures, had more success, and made the snake (say the *Brāhmens*) not only tractable, but even well-disposed to all such as respectfully approached him.

him. He even reduced the size of the serpent so much, as to carry him about in an earthen vessel: and crowds of people are now said to worship him at the place of his residence near the river *Câlî*. This is, probably, the snake *Hrâdî*, so famous throughout Egypt. The *Mysteries* insist that it is a *Sâkî* of that name transformed into a snake, the *Christians*, that it is *Asmodæus*, mentioned in the book of *Tobit*; the *Afrosigibdis* of the *Perfian* romances, and the *Hindus* are equal to them in their superstitious notions. My learned friends at *Câlî* inform me, that the sacred snake is at this day visited by travelling *Sannyâsîs*, but I cannot assert this as a fact, having never seen any *Hindu* who had travelled so far. Those whom I have seen, had never gone beyond the *Euphrates* but they assured me, that they would have passed that river, if they had not been deterred by reports of disturbances among the *Arab* chiefs to the westward. The boldest religious adventurers among the *Sannyâsîs* are those from the north-west of *India*, for no native of *Bengal*, or, indeed, of the countries east of the *Ganges*, would now attempt (at least I never heard of any who had attempted) such perilous journeys. As to the belief of the *Hindus*, that *Astica* put an effectual stop to the fiery breath of *Sanc'ba-nâgâ*, or the *Samûm*, it appears, from the relation of Mr. *Bruce*, that the second publick-spirited saint had no more success than the first.

We must observe, that *naga*, or *motionless*, is a *Sanskrit* name for a *mountain*, and that *nâgâ*, its regular derivative, signifies both a *mountain-snake* and a wild *elephant*: accordingly we read of an *elephant-king* in *Sanc'ba*, who reigned on the banks of the *Mareb*, thence called *Sanc'ba-nâgâ*, and when *CHISHNA* had slain both him and his subject elephants, their *bones* were heaped on the banks of the *Tacazzî*, which from that event had the name of *Aft-bimati*.

The other parts of *Sanc'ha-dwipa* Proper, adjacent to the sea, were inhabited by the subjects of *SANC'HA'LURA*, whose palace was a *hell* in the ocean: but they are said to have resided in *islands* on or near the mountains of the *Afri-*
can continent. They are represented as cannibals, and even as demons incarnate, roaming by night, and plundering the flat country, from which they carried off men, women, and children, whom they devoured *alive*; that is, perhaps, as raw flesh is now eaten in *Abyssinia*. From this account it should seem, that the *Sanc'ha'suras* lived in the caves of mountains along the coast, while their king resided in a cavern of the small island *Sukhem*, where there still is a considerable town, in the middle of a large bay. He there, probably, concealed his plunder, and thence was reported to dwell in the ocean. The name of that island appears to have derived from *Sukhim*, the plural of *Sukh*, in *Hebrew*, and the *Sanc'b* of the *Hindus*. By the ancient geographer it is called both *Sakha*, and the *Harbour of preserving Gods*, from the *preservation*, I suppose, of *Sanc'ha-dwipa*, and its inhabitants, by the *divine* assistance of *CRISHNA*, who, with an army of desties, attacked and defeated *SANC'HA'SLRA*, pursuing him even through the sea, where he drew the monster from his *hell*, and put him to death.

Besides these first inhabitants of *Sanc'ha-dwipa*, who are described by the mythologists as *elephants*, *demons*, and *snakes*, we find a race, called *S'anc'hā-*
yanas, who are the real *Troglodytes*, or *Shangalas*; for *ta* is a regular termination of *Sanskrit* adjectives, as *Bhāgala*, fortunate, *Siṅhala*, lion-like, *Bengala*, which properly means *belonging to the country of Benga*. They were descendants of *ATRI*, before named, whose history, being closely connected with that of the *Sacred Ises* in the west, deserves peculiar attention. He sprang (say the writers of the *Purānas*) from the mind of *BRAHMA*, who appointed him a *Prajāpati*, or *Lord of Creatures*, commanding him to produce a numerous

race.

race, and entrusting him with the *Vēdās*, which had existed eternally in the divine idea, that he might instruct his posterity in their civil and religious duties. ATRI first repaired to a western region, where he became the father of the lovely *Tubha-rajīs*, or *with dewy beams*. He thence passed into the country watered by the river *Sanc'ba-nāgā*, where proceeding to the *Sanc'ba-nāgā* hills, he sat on the *Swēta-giri*, or *White Mountain*, fixed in deep meditation on the author of his existence. His arrival was quickly known throughout the country, and the few inhabitants of it came to worship him, bringing even their wives and daughters, that they might bear children by so holy a personage; but his days and nights being wholly devoted to contemplation and sacred acts, his only time for dalliance was during the morning twilight. He became, however, the ancestor of a considerable nation, who were distributed, like other *Hindus*, into the sacerdotal, military, commercial, and servile classes.

His first born, *SANC'HA'YANA*, had a fair complexion, and great bodily strength, but was irreligious, turbulent, and libidinous, eating forbidden flesh, and living in the caverns of rocks. Nor were his brethren and their offspring better in the end than himself. Thus the Jews, who have borrowed many Indian fables, which were current, I suppose, among their neighbours, insist, in their *Talmud*, that *Adam* begat none but demons till he was 150 years old, (a) The pious Patriarch, deeply afflicted by the vices of his children, expostulated with them long in vain, and seeing no remedy, contented himself with giving them the best advice; teaching them how to make more habitable caves in the mountains; *pallis*, or arbours under trees; and *ghoshas*, or inclosures, for their herds; permitting them to eat what they pleased, commanding them to dwell constantly on the mountains assigned to them,

(a) Eruvin, p. 18

and to take particular care of the spot which their forefather inhabited, calling it from his name *Atri-f'bán*. After this arrangement, he left them, and went to the country near the *Sindhu*, or *Indus*, settling on the *Dévaríkád* Mountains, where he avoided the *morning-twilight*, which had before been unprosperous, and produced a race eminent in virtue, for whom, when they multiplied, he built the famous city of *Nagara*, emphatically so called, and generally named *Dvára-nagara*, which stood near the site of the modern *Cábul*.

Since the *Svēta-giri*, on which *Atri-f'bán* is declared to have stood, was at no great distance from the river *Sanc'ba-négā*, it is most probably the same with the *Amka-tzaada*, or White Mountain, mentioned by Mr BRUCE, who says, that it is the most considerable settlement of the *Shangalas*. It stands almost due north-west from *Debarowa*, and is nearer by one-third to the *Mareb* than to the *Tacazzé*. The *pallis*, or arbours, of the *Shangalas* are fully described by Mr BRUCE, in a manner entirely conformable to the descriptions of them in the *Purána*s, except that they are not said always to be covered with skins. The *Páks* of *India* live still in similar arbours during the greatest part of the year. That the *Sanc'báyanas* were the predecessors of the *Shangalas*, I have no doubt, though the former are said to have white complexions, and the latter to be black, for, not to insist that the climate alone would, in a long course of years, effect a change of complexion, it is probable that the race might be mixed, or that most of the old and genuine *Sanc'bálas* might have been exterminated, and PLINY mentions a race of white *Ethiopians*, who lived to the west of the *Nile*, (a) Though *Atri-f'bán* be applied in the *Purána*s to the country also of the *Sanc'báyanas*, as well as to the station of *ATRI*, yet the regular derivative from his name is

(a) Lib. 5 Cap. 70.

Atryā, and we find accordingly a part of *Ethiopia* named *Athēria* by the Greeks, who called its inhabitants *Atberū*. And STRABO confines this appellation to a particular tribe, who seem to be the *Atters* of PTOLEMY, and lived near the confluence of the *Tacazzē* and the *Mareb*, (a) They were *Atrēyas*, or descended from *ATRI* but the Greeks, as usual, referred a foreign epithet to a word in their own language. In the *Dionysiack*s of NONNUS we read of *Ἄερος Μέρης*, which is translated *Meroe*, with *perpetual summer*; but surely the word can have no such meaning, and *Meroe* must have been so named, because it was once the capital of *Athēria*, (b)

It appears from the *Purāns*, that the *Sanc'bhyanas*, or old *Sāngalas*, were not destitute of knowledge; and the *Brāhmens* admit that they possessed a part at least of the *Vēdas*.

IV The history of the *Cūlīla-cējas*, or men with *curled-hair*, is disguised in the following legend. SAGARA, an ancient monarch, who gave his name to the *Sagara*, or *ocean*, was going to perform the *Āśwamedha*, or sacrifice of a *horse*, when INDRA descended, and stole the victim, which he conveyed to a place near the mouth of the *Gangā*, where the sage CAPILA was intent on his religious austerities. The God of the Firmament there tied the horse by the side of the holy man, and retired unperceived by him. The monarch, missing the consecrated horse, dispatched his *sixty thousand* sons, or descendants, in search of him. They roved over the whole earth, and finding him at last near the mansion of CAPILA, accused him of the sacrilege, and began to treat him with violence, but a flame issued from the eyes of the saint, which consumed them

(a) Strabo, B. 11 p. 82.

(b) Dionys. B. 17. v. 396

all in an instant. Their father, being apprized of their death, sent an army against CAPILA, who stood fixed to receive them; and, when they approached, unbound his *jāḍ*, or *long platted hair*, and, giving it a twist, struck the ground twice or thrice with it, casting an *oblique* glance of contempt on his adversaries. In that moment an army of men, with *curled hair*, sprang from the earth, attacked the legions of SAGARA, and defeated them. After their victory, they returned to the sage, asking who they were, and demanding a fit place of abode. CAPILA told them, that they were *Jatāpots*, or produced by the *fall of his locks* on the ground; that from the *side lock* which he had cast on his enemies, their hair was *cusila*, or crisp, that they should thence be called *Cusilas* and *Cusila-cēśas*, that they must be *yāt'kata'byas*, or live *as they were* when produced by him; that is, always prepared for just war, that they must repair to *Sanc'ha-dwip*, and form a settlement, in which they would encounter many difficulties, and be continually harrassed by bad neighbours; but that, when CRISHNA should overpower and destroy SANC'HA'BURA, he would establish their empire, and secure it from future molestation. They accordingly travelled through the interior *Cufa-dwips*, where the greatest part of them chose to remain, and received afterwards a terrible overthrow from PARAS'U-RA'MA. The others passed into *Sanc'ha-dwip*, and settled on the banks of the *Citrī* but having revolted against DE'VANAHUSHA, they were almost wholly extirpated by that potent monarch.

Violent feuds had long subsisted between the family of GAUTAMA on one side, and those of VISWA'MITRA and JAMADAGNI on the other. The kings of *Cufa-dwip* *wubin* took the part of GAUTAMA, and the *Haisayas*, a very powerful nation in that country, (whom I believe to have been *Perians*) were inveterate against JAMADAGNI, whom they killed after defeating his army.

Among

Among the confederates in *Cufa-dwipa* were the *Rómacas*, or dressed in *bair-clotb*, the *Sacás*, and a tribe of them called *Sacéfres*; the Hindus of the *Cshatriya* class, who then lived on the banks of the *Chasfous*, or *Oxus*, the *Párafcas*, a nation beyond the *Nile*, the *Barbaras*, or people of *Nubia*; the inhabitants of *Cámbya*, the *Carátas* and *Harítas*, two tribes of the *Pakis*, and the *Tevanas*, or ancestors of the *Greeks*. These allies entered India, and defeated the troops of *Viswa'MITRA* in the country called *Yudha-bbhumi*, or the Land of War, now *Tebud*, between the *Indus* and the *Bebat*.

PARAS'U-RA'MA, the son of **JAMADAGNI**, but supposed afterwards to have been a *portion* of the divine essence in a human form, was enraged at the success of the confederates, and circulated a publick declaration, that **NA'RED** had urged him to extirpate them entirely, assuring him, that the people of *Cufa-dwipa*, who dwelt in the hollows of mountains, were *cavyádás*, or *carnivorous*, and that their King **CRAVYA'DHIPETI**, or *Chief Ruler of Cannibals*, had polluted both *earth* and *water*, which were two of the eight forms of **I'sa**, with the mangled limbs and blood of the strangers, whom he and his abominable subjects had cruelly devoured. After this proclamation, **PARAS'U-RA'MA** invaded *Cufa-dwip*, and attacked the army of **CRAVYA'DHIPETI**, who stepped from the ranks, and challenged him to single combat. They began with hurling rocks at each other, and **RA'MA** was nearly crushed under a mountain thrown by his adversary, but, having disengaged himself, he darted huge serpents, which enfolded the giant in an inextricable maze, and at length destroyed him. The *blood* of the monster formed the *Lobita-c'bamda*, and that of his army, the *Lobitóda*, or *river* with the *bloody waters*. It is, I believe, the *Adonis* of the ancients, now called *Nabru lbrábim*, the waters of which, at certain seasons of the year, have a sanguine tint. I suppose

pose CRAVVA'DADHIPETI to be the LYCURGUS EODORUS of the Greeks, who reigned in Palestine and in the country around Damascus. His friend CAICY'YA, whom the Greeks called ORONTES, renewed the fight, and was also slain. Then came the King of the *Catila-sjfas*, and MAHATYA'MA, ruler of the *Syama-nuc'has*, and usually residing in *Arost'hán*, or *Arabia*; the former of whom I conceive to be BLEMYE; and the second ARABUS, whom the Greek Mythologists also named OROBANDES and ORUAKDES. They fought a long time with valor, but were defeated, and, on their humiliating themselves, and imploring forgiveness, were allowed to retire, with the remains of their army, to the banks of the *Cáh*, where they settled, while PARA'SU-RA'MA, having terminated the war in *Cufha-dwipa*, returned to his own country, where he was destined to meet with adventures yet more extraordinary.

This legend is told nearly in the same manner by the poet NOXNUS, a native of *Egypt*; who says, that, after the defeat of LYCURGUS, the *Arabs* yielded, and offered sacrifices to BACCHUS, a title corrupted from BHAGAVAT, or the *preserving power*, of which a *ray* or *portion* had become incarnate in the person of PARA'SU-RA'MA. He relates, that "BLEMYE, with curled hair, "chief of the *ruddy* or *Erythrean Indians*, held up a bloodless olive branch "with the supplicating troops, and bowed a servile knee to DIONYSOS, who "had slain his *Indian* subjects, that the God, beholding him bent to "the ground, took him by the hand, and raised him, but conveyed "him, together with his many-tongued people, far from the dark *Ery- tbien Indians* (since he abhorred the government and manners of Da- "RIAOLS) to the skirt of *Arabia*, that he, near the contiguous ocean, "dwelt in the happy region, and gave a name to the inhabitants of its "towns, but that rapid BLEMYE passed onward to the mouth of the *Nile* with "seven branches, destined to be contemporary ruler over the people of *Ethiopia*,
that

" that the low ground of *Etiopian Meroë* received him as a chief, who should
" leave his name to the *Etiopes* born in subsequent ages, (a)"

The emigration of the *Culisa-césas* from India to Egypt, is mentioned likewise by PHILESTRATUS in his life of APOLLONIUS. When that singular man visited the Brāhmaṇas who lived on the hills to the north of *Sri nagara*, at a place now called *Trilaci-nárdyasa*, near the banks of the *Cedára-gangá*, the chief Brāhmaṇa, whom he calls LARCHAS, gave him the following relation concerning the origin of the *Etiopians*. " They resided (said he) formerly " in this country, under the dominion of a king named *Ganges*, during whose " reign the Gods took particular care of them, and the earth produced " abundantly whatever was necessary for their subsistence; but, having slain " their king, they were considered by other Indians as defiled and abominable. " Then the seeds which they committed to the earth rotted, their women " had constant abortions, their cattle was emaciated, and, wherever they be- " gan to build places of abode, the ground sunk, and their houses fell. The " spirit of the murdered king incessantly haunted them, and would not be " appeased until the actual perpetrators of the murder had been buried alive, " and even then the earth forbade them to remain longer in this country. Their " sovereign, a son of the river *Ganges*, was near ten cubits high, and the " most majestic personage that ever appeared in the form of man. His " father had once very nearly overflowed all *India*, but he directed the course " of the waters towards the sea, and rendered them highly beneficial to the " land, the goddess of which supplied him, while he lived, with abundance, and " fully avenged his death, (b)" The basis of this tale is unquestionably

(a) Dionysiac B 17 ver 383—397

(b) Philestr Apollen B 3 ch 6.

Indias, though it be clearly corrupted in some particulars. No Brâhma was ever named *Iarebas*, which may be a corruption of *Aysha*, or *Aryha*, or, possibly, of *YASCA*, the name of a sage, who wrote a glossary for the *Yûdas*. nor was the *Ganges* ever considered as a *male* deity, but the son of *GANGA*, or *GA'NGE'R'A*, was a celebrated hero. According to the *Hindu* legends, when CAPILA had destroyed the children of SAOARA, and his army of *Cattle-ashas* had migrated to another *dwipa*, the *Indiae* monarch was long inconsolable; but his great grandson BHAGI'RAT'HA conducted the present *Ganges* to the spot where the ashes of his kindred lay, and they were no sooner touched by the divine water, than the sixty thousand princes sprang to life again. Another story is, that, when the *Ganges*, and other great rivers, were swollen to such a degree, that the Goddess of Earth was apprehensive of a general inundation, BHAGI'RAT'HA (leaving other holy men to take care of inferior rivers) led the *Ganges* (from him named *Bhágirat'hi*) to the ocean, and rendered her salutary to the earth, instead of destructive to it. These tales are obviously the same in substance with that told by IAREHAS, but with some variations, and additional circumstances. APOLLONIUS most certainly had no knowledge of the *Indiae* language, nor is it, on the whole, credible, that he was ever in *India* or *Ethiopia*, or even at *Babylon*. He never wrote an account of his travels but the sophist PHILOSTRATUS, who seems to have had a particular design in writing the history of his life, might have possessed valuable materials, by the occasional use of which he imposed more easily on the publick. Some traveller might have conversed with a set of ignorant *Sannyâsis*, who had (what most of them now have) an imperfect knowledge of ancient legends concerning the *Dêvâts* and the description which PHILOSTRATUS gives of the place in the hills, where the supposed *Brâhmens* resided, corresponds exactly with a place called *Trilobi-nârâyana* in the *Purâas*, which has been described to me from the information of *Sannyâsis*, who ignorantly called

called it *Tribhūgi-nārāyaṇ*, but for a particular account of it, I must refer to a geographical and historical description of the *Ganges*, and the countries adjacent to it, which I have nearly completed

The people named *Cūlīla-śāsas* are held by some Brāhmens to be the same with the *Hāfyasillas*, or at least a branch of them, and some suppose that the *Hāfyasillas* are the before-mentioned remnant of the *Cūlīla-śāsas*, who first settled on the banks of the *Nile*, and, after their expulsion from Egypt, by De'VA-NAHUSHA, were scattered over the *African* deserts. The *Gauts*, or *Gātīls*, were of old the most powerful nation in *Africa*, and I should suppose them to be the descendants of the first *Cūlīlas*, or *Cūlīls*, (for so they are frequently called, especially in conversation,) who settled first near the *Cāb* river, and were also named *Hāfyasillas* but they must have dwelt formerly in *Bengal*, if there be any historical basis for the legend of *CAPILA*, who was performing acts of religious austerity at the mouth of the *Ganges*, near old *Sīgar*, or *Gangā*, in the *Sunderbans*. They were black, and had curled hair, like the *Egyptians* in the time of HERODOTUS but at present there are no such negros in *India*, except in the *Andaman Islands*, which are now said to be peopled by cannibals, as they were, according to PROLEMY, at least eighteen hundred years ago. From *Andaman* the Greeks made *Eudaimon*, and conceived it to be the residence of a good *Genus*. It is certain, that very ancient statues of Gods in *India* have crisp hair, and the features of negroes. Some have caps, or tiaras, with curls depending over their foreheads, according to the precise meaning of the epithet *Cūlīlaca*. Others, indeed, seem to have their locks curled by art, and braided above in a thick knot, but I have seen many idols on which the woolly appearance of the hair was so well represented as to preclude all doubt, and we may naturally suppose that they were made by the *Cūlīla-śāsas* when they prevailed in this country. The Brāhmens

ascribe these idols to the *Baudhas*; and nothing can hurt them more, than to say that any of their own Gods had the figure of *Habesh*, or Negro; and even the hair of BUOSHA himself, for whom they have no small degree of respect, they consider as twisted in braids, like that of some modern *Samyssis*: But this will not account for the thick lips and flat noses of those ancient images: nor can it reasonably be doubted, that a race of negroes formerly had power and pre-eminence in *India*. In several parts of *India*, the mountaineers have still some resemblance to negroes in their countenance and hair, which is curled, and has a tendency to wool. It is very probable that, by intermarriages with other outcasts, who have black complexions, but straight hair, they have changed in a course of ages, like the *Cutila-cissas*, or old *Egyptians* for the modern *Copis* are far from answering to the description given by HERODOTUS, and their features differ considerably from those of the mummies, and of ancient statues brought from *Egypt*, whence it appears that their ancestors had large eyes with a long slit, projecting lips, and folded ears of a remarkable size.

V. Of the *Syâna-mac'has*, who migrated from *India*, the origin is not yet perfectly known, but their faces were black, and their hair straight, like that of the *Hindus*, who dwell on the plains. They were, I believe, the *straight-haired Esbops* of the ancients, (a,) and their king, surnamed *Maha-sya'ma*, or the *Great Black*, was probably the king *Arabs*, mentioned by the Greek mythologists, who was contemporary with *NINUS*. They were much attached to the *Cutila-cissas*, whence we may infer, that the religious tenets of the two nations were nearly the same. It is believed that they were the first inhabitants of *Arva-sh'ban*, or *Arabia*, but passed thence into *Africk*, and settled on the banks of the *Nile*. The part of *Egypt* which lies to the east of that river, is by

(a) Ηερόχις Herod. Polyhymn.

same considered as part of *Arabs*; and the people who lived between the *Mediterranean* and *Meroë*, were by JuBā said to be *Arabs*.

VI. The first origin of the *Dánavas*, or Children of DANU, is as little known as that of the tribe last mentioned, but they came into *Egypt* from the west of *India*, and their leader was *BRI*, thence named DA'NAVENDRA, who lived at the time when the *Padma-mandira* was erected on the banks of the *Cumudavati*. The *Dánavas*, whom he governed, are frequently mentioned in the *Puranas* among the inhabitants of countries adjacent to the *Ganges*.

As to the *Strī-ráya*, or country governed by Women, the *Hindus* assert, that the sovereign of it was always a Queen, and that all her officers, civil and military, were females, while the great body of the nation lived as in other countries, but they have not in this respect carried the extravagance of fable to the same pitch with the Greeks in their accounts of the *Amazons*. It is related in the *Mallári Mábátya*, that when RA'AVANA was apprehensive of being totally defeated, he sent his wives to distant countries, where they might be secure that they first settled on the *Indian* peninsula, near the site of *Srirangapattana*, or *Seringapatnam*, but that, being disturbed in that station, part of them proceeded to the north of *Dwáraçád*, in *Gujarat*, and part into *Sanc'ha-dwípa*, where they formed a government of women, whence their settlement was called *Strī-ráya*. It was on the sea-shore, near the *Cula* Mountains, extending about forty *yójanas* in length, and surrounded by low swampy grounds, named *Jalabbáms*, in *Sancrit*, and *Daldal* in the vulgar idiom. *Strī-ráya*, therefore, must be the country of *Sabá*, now *Affab*, which was governed by a celebrated Queen, and the land round which has to this day the name of *Talatal*. The *Cula* Mountains are that range which extends from *Doborowa* (the *Colos* of the ancient geographers) to the source of the *Tecazzé*, which

PTOLEMY

Proterv calls the Marsh of *Crois*; a word which I suppose to be derived from the *Sanskrit*

VII. YAVANA is a regular participle form of the root *yo*, to *mix*; so that *yavana*, like *mitra*, might have signified no more than a *mingled* people but since *yoni*, or the *female nature*, is also derived from the same root, many *Pandits* insist that the *Yavanas* were so named from their obstinate assertion of a superior influence in the *female* over the *linga* or *male nature*, in producing a perfect offspring. It may seem strange that a question of mere physiology should have occasioned not only a vehement religious contest, but even a bloody war, yet the fact appears to be historically true, though the *Hindu* writers have dressed it up, as usual, in a veil of extravagant allegories and mysteries, which we should call obscene, but which they consider as awfully sacred. They represent Nārāyana nursing (as his name implies) *on the waters*, in the character of the *first male*, and the *principle* of all nature, which was wholly surrounded in the beginning by *Tamas*, or *Darkness*, the *Chaos* and primordial *Night* of the Greek mythologists, and, perhaps, the *Theumaz*, or *Thamas*, of the ancient *Egyptians*. The *Chaos* is also called *PRĀKRITI*, or crude Nature, and the male deity has the name of *Pūrusha*, from whom proceeded *Sakti*, or *power*, which, when it is ascribed to the earth, in contradistinction to the waters, is denominated *Adbhūta Sakti*, or, the *power of containing or conceiving*: but that *power*, in its first state, was rather a *tendency* or *aptitude*, and lay dormant or inert until it was excited by the *bija*, or *vivifying principle*, of the platiick *Iswara*. This *power*, or *aptitude*, of nature is represented under the symbol of the *yoni*, or *bbaga*, while the *animating principle* is expressed by the *linga*. Both are united by the creative power, *BRAHMA*, and the *yoni* have been called the *nevel* of *VISHNU*, not identically, but nearly, for though it is held, in the

Védânta, that the Divine Spirit penetrates or pervades all nature, and though the *Sat* be considered as an emanation from that Spirit, yet the emanation is never wholly detached from its source, and the penetration is never so perfect as to become a total union or identity. In another point of view, BAAMANA corresponds with the *Cronos*, or Time, of the Greek mythologists for through him generations pass on successively, ages and periods are by him put in motion, terminated, and renewed, while he dies and springs to birth alternately, his existence or energy continuing for an hundred of *bis* years, during which he produces and devours all beings of less longevity. VISHNU represents *Water*, or the humid principle; and ISWARA, *Fire*, which recreates or destroys, as it is differently applied. PRIT'HIVI, or *Earth*, and RAVI, or the *Sun*, are severally *trimûrtis*, or forms of the three great powers acting jointly and separately, but with different natures and energies, and by their mutual action, excite and expand the rudiments of material substances. The word *mûrti*, or form, is exactly synonymous with *âvâha*, and, in a secondary sense, means an image but in its primary acceptation it denotes any *shape* or appearance assumed by a celestial being. Our *real* souls are, according to the *Védânta*, no more than images, or *âvâha*, of the Supreme Spirit, and HOMER places the *idol* of HERCULES in *Elysium* with other deceased heroes, though the God himself was at the same time enjoying bliss in the heavenly mansions. Such a *mûrti*, say the *Hindus*, can by no means affect with any sensation, either pleasing or painful, the being from which it emanated; though it may give pleasure or pain to collateral emanations from the same source hence they offer no sacrifices to the Supreme Essence, of which our own souls are *imagers*, but adore him with silent meditation; while they make frequent *homâs*, or *oblations*, to fire, and perform acts of worship to the *Sun*, the *Stars*, the *Earth*, and the powers of *Nature*, which they consider as *mûrtis*, or images, the same in kind with ourselves, but transcendently higher in degree.

The

The Moon is also a great object of their adoration; for, though they consider the Sun and Earth as the two grand agents in the system of the universe, yet they know their reciprocal action to be greatly affected by the influence of the lunar orb according to their several aspects; and seem even to have an idea of *attraction* through the whole extent of nature. This system was known to the ancient Egyptians; for, according to Diadorus, (a) their *VULCAN*, or *elemental fire*, was the great and powerful deity whose influence contributed chiefly toward the generation and perfection of natural bodies; while the ocean, by which they meant *water* in a collective sense, afforded the nutriment that was necessary; and the *Earth* was the vase, or capacious receptacle, in which this grand operation of nature was performed: hence *ORPHEUS* described the Earth as the *universal Mother*, and this is the true meaning of the *Sanskrit* word *Amba*. Such is the system of those *Hindus* who admit an equal concurrence of the two principles: but the declared followers of *VISHNU* profess very different opinions from those adopted by the votaries of *I'SWARA*. Each sect, also, is subdivided according to the *degree* of influence which some of them allow to be possessed by that principle, which on the whole they deprecate: but the pure *Vaisnavas* are, in truth, the same with the *Tantras*, of whom we shall presently give a more particular account.

This diversity of opinion seems to have occasioned the general war which is often mentioned in the *Purânes*, and was celebrated by the poets of the West as the basis of the *Grecian* Mythology. I mean that between the Gods, led by *JUPITER*, and the Giants, or *Sons of the Earth*, or, in other words, between the followers of *I'SWARA* and the *Tantras*, or men produced, as they asserted, by *PRIT'HIVI*, a *power* or *form* of *VISHNU*; for *NONNUS* expressly

(a) Diod. Sic. B. 2.

declares (a) that the war in question arose between the partisans of JUPITER and those who acknowledged no other Deities but Water and Earth. According to both NONNUS and the Hindu mythologists, it began in India, whence it was spread over the whole globe, and all mankind appear to have borne a part in it.

These religious and physiologal contests were disguised in *Egypt* and *India* under a veil of the wildest allegories and emblems. On the banks of the *Nile*, OSIRIS was torn in pieces, and on those of the *Ganges*, the limbs of his consort I'si', or SATI', were scattered over the world, giving names to the places where they fell, and where they still are superstitiously worshipped. In the book entitled *Mabā calā sañibhā*, we find the *Grecian* story concerning the wanderings of DAMATER and the lamentations of BACCHUS, for ISWARA, having been mutilated, through the imprecations of some offended *Mūni*s, rambled over the whole earth, bewailing his misfortune; while I'si' wandered also through the world, singing mournful dirties in a state of distraction. There is a legend in the *Servaraja*, of which the figurative meaning is more obvious. When SATI', after the close of her existence as the daughter of DIESILA, sprang again to life in the character of PA'RVATI', or *Mountain born*, she was reunited in marriage to MAHA'O'EVA. This divine pair had once a dispute on the comparative influence of the sexes in producing animated beings, and each resolved, by mutual agreement, to create apart a new race of men. The race produced by MAHA'O'EVA was very numerous, and devoted themselves exclusively to the worship of the male deity, but their intellects were dull, their bodies feeble, their limbs distorted, and their complexions of different hues. PA'RVATI' had at the same time created a multitude

(a) Dionys B 34, v 24:

of human beings, who adored the female power only, and were all well shaped, with sweet aspects, and fine complexions. A furious contest ensued between the two races, and the *Lengas* were defeated in battle. But MAMĀDEVI^{LA}, enraged against the *Tavas*, would have destroyed them with the fire of his eye, if PA'RVATI had not interposed, and appeased him, but he would spare them only on condition that they should instantly leave the country, with a promise to see it no more; and from the *yām*, which they adored as the sole cause of their existence, they were named *Tavas*. It is said, in another passage, that they sprang from the cow SAVILA'; but that cow was an incarnation of the goddess Iai'; and here we find the *Egyptian* legend, adopted by the *Greeks*, of Io and Iris. After their expulsion, they settled, according to the *Purākas*, partly on the borders of *Varekā-dwip*, and partly in the two *dweepas* of *Cusha*, where they supported themselves by predatory excursions and piracy, and used to conceal their booty in the long grass of *Cufra-dwip* *within*; but PA'RVATI constantly protected them, and, after the severe punishment of their revolt against DEVANAHUSH, or DIONYSIUS, gave them a fine country, where in a short time they became a flourishing nation. Those *Tavas* who remained in the land of *Cusha*, and on the banks of the *CIB*, were perhaps the *Hellenick* Shepherds mentioned in *Egyptian* history; and it is probable that great part of those who had revolted against DIONYSIUS, retired, after their defeat, into *Greece*. All the old founders of colonies in that country had come originally from *Egypt*; and even the *Athenians* admitted that their ancestors formerly resided in the districts round *Sais*.

It is evident that the strange tale in the *Servarāsa* was invented to establish the opinion of the *Tonyancitas*, or votaries of Devi', that the good shape, strength, and courage of animals depend on the superior influence of the

female parent, whose powers are only excited and put into action by the male *sura* but the *Lingavita* maintain an opposite doctrine; and the known superiority of mules begotten by horses over those which are brought forth by mares, appears to confirm their opinion, which might also be supported by many other examples from the animal and vegetable worlds. There is a sect of *Hindus*, by far the most numerous of any, who, attempting to reconcile the two systems, tell us, in their allegorical style, that PA'RVATI' and MA'NA'DVA found their concurrence essential to the perfection of their offspring, and that VISHNU, at the request of the Goddess, effected a reconciliation between them hence the *navel* of VISHNU, by which they mean the *os tinctæ*, is worshipped as one and the same with the sacred *yômî*. This emblem too was *Egyptian*, and the mystery seems to have been solemnly typified, in the temple of JUPITER AMMON, by the vast *umbilicus* made of stone, and carried, by eighty men, in a *boat*, which represented the *fossa navicularis*. Such, I believe, was the mystical *boat* of Isis, which, according to LACTANTIUS, was adored in *Egypt*, (a) We are assured by TACITUS, that the *Suevi*, one of the oldest and most powerful *German* nations, worshipped Isis in the form of a ship and the *Chaldeans* insisted that the *Earth*, which, in the *Hindu* system, represents PA'RVATI', was shaped and hollowed like an immense *boat*. From *Egypt* the type was imported into *Greece*, and an *umbilicus* of white marble was kept at *Delphi*, in the sanctuary of the temple, where it was carefully wrapt up in cloth, (b) The mystical *boat* is called also, by Greek mythologists, the *cup* of the Sun, in which HERCULES, they say, traversed the Ocean, and this HERCULES, according to them, was the son of JUPITER but the Greeks, by whom the notion of an *avatâra*, or *descent* of a god in a human form, had

(a) Lactant. Divin. Insti. L. 1 C. 1.

(b) Strabo. B. 9. 420

not been generally adopted, considered those as the *souls*, whom the *Hindus* consider as *incarnate rays* or *portions* of their several deities. Now JUPITER was the ISWARA of the *Hindus*, and the OSZIS of the *Egyptians*, and HERCULES was an *avatâra* of the same divinity, who is figured, among the ruins of Luxorium, in a *boat*, which eighteen men bear on their shoulders. The *Indians* commonly represent this mystery of their physiological religion by the emblem of a *Nymphaea*, or *Lotos*, floating like a *boat* on the boundless ocean, where the whole plant signifies both the Earth and the two principles of its *fecundation*. The germ is both *Mîru* and the *linga*; the *petals* and *filaments* are the mountains which encircle *Mîru*, and are also a type of the *yôni*; the leaves of the *calyx* are the *four* vast regions to the cardinal points of *Mîru*; and the *leaves* of the plants are the *dweepas*, or *isles*, round the land of *Jambu*. Another of their emblems is called *Argba*, which means a *cup* or *dish*, or any other *vessel* in which *fruit* and *flowers* are offered to the deities, and which ought always to be *shaped like a boat*, though we now see *argbas* of many different forms, oval, circular, or square, and hence it is that ISWARA has the title of *Argbanâ'ba*, or the *Lord of the boat-shaped Vessel*. A rim round the *argba* represents the mysterious *Tens*, and the navel of VISHNU is commonly denoted by a convexity in the centre, while the contents of the vessel are symbols of the *linga*. This *argba*, as a type of the *âdhâra-sâtti*, or *power of conception*, excited and vivified by the *linga*, or *Pbalus*, I cannot but suppose to be one and the same with the ship *Argo*, which was built, according to ORPHEUS, by JUNO and PALLAS, and according to APOLLONIUS, by PALLAS and ARGUS, at the instance of JUNO, (a) The word *Tens*, as it is usually pronounced, nearly resembles the name of the principal *Hetrufcan* Goddess, and the *Sanscrit* phrase *Argbanâ'ba* ISWARA seems accurately rendered by PLUTARCH, when

(a) Orph. Argon v. 66. Apoll. Rhod. B. 2. v 1190

he asserts that OENIUS was commander of the *Argo*, (a) I cannot yet affirm, that the words *p'halis*, or *frust*, and *p'balla*, or a *flower*, had ever the sense of *Pballus*; but fruit and flowers are the chief oblations in the *argha*, and *tri-p'ala* is a name sometimes given, especially in the west of *India*, to the *trisula*, or trident, of *MARA'DEVA*. In an Essay on the Geographical Antiquities of *India*, I shall show that the JUPITER *Triphylus* of the *Panthean* Islands was no other than *SIVA* holding a *trip'bala*, who is represented also with *three eyes*, to denote a triple energy, as *VISHNU* and *PRIT'HIVI* are severally typified by an equilateral *triangle*, (which likewise gives an idea of capacity,) and conjointly, when their powers are supposed to be combined, by two such equal triangles intersecting each other.

The three sects which have been mentioned, appear to have been distinct also in *Greece* 1 According to THÉODORET, ARNOBIUS, and CLEMENS of *Alexandria*, the *Tōni* of the *Hindus* was the sole object of veneration in the mysteries of *Eleusis*. When the people of *Syracuse* were sacrificing to goddesses, they offered cakes in a certain shape, called *μίλλαι*; and in some temples, where the priestesses were probably ventriloquists, they so far imposed on the credulous multitude, who came to adore the *Tōni*, as to make them believe that it spoke, and gave oracles 2 The rites of the *Pballus* were so well known among the *Greeks*, that a metre, consisting of three trochees only, derived its name from them In the opinion of those who compiled the *Purānas*, the *Pballus* was first publicly worshipped, by the name of *Bäléswara-linga*, on the banks of the *Cumudvati*, or *Euphrates* and the *Jews*, according to *Rabbi ACHA*, seem to have had some such idea, as we may collect from their strange tale concerning the different earths which formed the body of *ADAM*, (b) 3 The middle sect, however, which is now

(a) Plot on *Ili* and *Odis*

(b) Gemara Sanhedrin, C 30 cited by *Re* and

prevalent

prevalent in *India*, was generally diffused over ancient *Europe*; and was introduced by the *Pelargi*, who were the same, as we learn from HERODOTUS, with the *Pelagi*. The very word *Pelargos* was probably derived from *P'ba* and *Arga*, those mysterious types, which the later mythologists disguised under the names of PALLAS and ARGO, and this conjecture is confirmed by the rites of a deity, named *PELARCA*, who was worshipped near Thebes and Beotia, and to whom, says PAUSANIAS, no victim was offered, but a female recently covered and impregnated, a cruel sacrifice, which the *Indian* law positively forbids, but which clearly shows the character of the Goddess to whom it was thought acceptable. We are told that her parents were POTNEUS and ISTERNIAS, or BACCHUS and INO, (for the Bacchantes were called also *Potniades*,) by whom we cannot but understand OSIRIS and ISIS, or the ISWARA and ISI of the Hindus. The three words *ambā*, *nábbi*, and *argba*, seem to have caused great confusion among the Greek mythologists, who even ascribed to the earth all the fanciful shapes of the *argba*, which was intended at first as a mere emblem hence they represented it in the shape of a *bout*, of a *cup*, or of a quoit with a boss in the centre, sloping towards the circumference, where they placed the ocean. Others described it as a square or a parallelogram, (a,) and Greece was supposed to lie on the summit, with Delphi in the *ravel*, or central part, of the whole, (b,) as the Jews, and even the first Christians, insisted that the true navel of the earth was *Jerusalem*, and as the *Muselmans* hold Mecca to be the *mother of cities*, and the *náfi zemín*, or earth's navel. All these notions appear to have arisen from the worship of which we have been treating. The *yoni* and *nábbi*, or navel, are together denominated *ambā*, or *mother*, but gradually the words *ambā*, *nábbi*, and *argba*, have become synonymous and as *āpñā* and *umbā* seem to be derived from

(a) Agathem, B 1 C 1

(b) Pind. Pyth 6 Eurip. Ion v 233

ambā, or the circular *argha* with a boss like a target, so ὄμφατος and *umbilicus* apparently spring from the same root, and even the word *navel*, though originally *Geslock*, was the same anciently with *nábbi* in *Sanskrit*, and *náf* in *Perisan*. The sacred *ancilia*, one of which was revered as the *Palladium* of *Rome*, were probably types of a similar nature to the *argha*, and the shields which used to be suspended in temples, were possibly votive *ambás*. At *Delphi* the mystick *Omphalos* was continually celebrated in hymns as a *sacred pledge* of divine favour, and the *navel of the world*. Thus the mystick boat was held by some of the first emigrants from *Afia* to be their palladium, or pledge of safety, and as such was carried by them in their various journies, whence the poets feigned that the *Argo* was borne over mountains on the shoulders of the *Argonauts*. I know how differently these ancient emblems of the *Hindus*, the *lotus* and mount *Méru*, the *argha*, or sacred vessel, and the name *Argbenás ba*, would have been applied by MR. BRYANT, but I have examined both applications without prejudice, and adhere to my own as the more probable, because it corresponds with the known rites and ceremonies of the *Hindus*, and is confirmed by the oldest records of their religion.

Such have been, according to the *Puráñas*, the various emigrations from *India* to *Cufsa-dwip*, and hence part of *Africa* was called *India* by the Greeks. The *Nile*, says THEOPHYLACT, flows through *Lybia*, *Ethiopia*, and *India*, (a) The people of *Mauritania* are said, by STRABO, to have been *Indians* or *Hindus*, (b,) and *Abyssinia* was called Middle *India* in the time of MARCO PAOLO. Where OVID speaks of ANDROMEDA, he asserts, that she came from *India*,

(a) B. 7 C. 17

(b) B. 17 p 828.

but we shall show, in an other Section, that the scene of her adventures was the region adjacent to the *Nile*. The country between the *Capsus* and the *Euxine* had the names both of *India* and *Ethiopia*. Even *Arachosia* is called *White India* by *Iasorus*, and we have already mentioned the *Yellow India* of the *Perians*, and the *Yellow Indians* of the *Turkis*, geographers. The most venerable emigrants from *India* were the *Zadavas*—they were the blameless and pious *Ethiopians* whom *Homer* mentions, and calls the *remotest of mankind*. Part of them, say the old *Hindu* writers, remained in this country; and hence we read of two *Ethiopian* nations, the Western and the Oriental. Some of them lived far to the east, and they are the *Zadavas* who stayed in *India*; while others resided far to the west, and they are the sacred race, who settled on the shores of the *Atlantick*. We are positively assured by *Hecatoborus*, that the oriental *Ethiopians* were *Indians*, and hence we may infer, that *India* was known to the *Greeks*, in the age of *Homer*, by the name of Eastern *Ethiopia*. They could not then have known it by the appellation of *India*, because that word, whatever may be its original meaning, was either framed or corrupted by the *Perians*, with whom, as long as their monarchs remained satisfied with their own territories, the *Greeks* had no sort of connection. They called it also the land of *Panckea*; but knew so little of it, that, when they heard of *India*, through their intercourse with the *Perians*, they supposed it to be quite a different country. In *Perian*, the word *Hindu* means both an *Indian* and any thing *black*, but whether, in the latter sense, it be used metaphorically, or was an adjective in the old language of *Peria*, I am unable to ascertain. It appears from the book of *ESTHER*, that *India* was known to the *Hebrews* in *Peria* by the name of *Hodu*, which has some resemblance to the word *Tedu*, and may have been only a corruption of it. *Hindu* cannot regularly be derived, as an *English* writer has suggested, from a *Sanskrit* name of the Moon, since that name is *INDU*, but it may be corrupted from *Sindhu*,

or the *Indus*, as a learned Brāhmaṇ has conjectured, for the hissing letter is often changed into an aspirate; and the Greek name for that river seems to strengthen his conjecture. Be it as it may, the words *Hinda* and *Hinduf'hān* occur in no *Sanskrit* book of great antiquity but the epithet *Hindavas*, in a derivative form, is used by the poet C'ALIDA's. The modern Brāhmaṇs, when they write or speak *Sanskrit*, call themselves *Hindus* but they give the name of *Cumāra-c'banda* to their country on both sides the *Ganges*, including part of the peninsula, and that of *Nāga-c'banda* to the districts bordering on the *Indus*.

Next to the emigration of the *Yādavas*, the most celebrated was that of the *Pālis*, or *Paliputras*, many of whose settlements were named *Pālif'hān*, which the Greeks changed into *Palaistīn*. A country so called was on the banks of the *Tigris*, and another in *Syria*. The river *Strymon* had the epithet *Palaistinos*. In *Italy* we find the *Palef'sini*, and at the mouth of the *Po*, a town called *Pbilishina*, to which may be added the *Pbilishine foſſones*, and the *Paliſtina arene* in *Epirus*. As the Greeks wrote *Palai* for *Pāli*, they rendered the word *Paliputra* by *Palaiſonos*, which also means the offspring of *Pāli*, but they sometimes retained the *Sanskrit* word for *ju'n*; and the town of *Palaiſpatrai*, to this day called *Paliputra* by the natives, stood on the shore of the *Helleſpont*. These disquisitions, however, would lead me too far, and I proceed to demonstrate the ancient intercourse between *Egypt* and *India*, by a faithful epitome of some mythological and astronomical fables, which were common to both those countries.

SECTION THE SECOND

OSIRIS, or, more properly, **YSIRIS**, according to **HELLANICUS**, was a name used in *Egypt* for the Supreme Being, (a.) In *Sanskrit* it signifies *Lord*, and

in that sense is applied by the *Brahmanes* to each of their three principal deities, or rather to each of the principal forms in which they teach the people to adore BRAHM, or the Great One and, if it be appropriated in common speech to MAHA'DEVA, this proceeds from the zeal of his numerous votaries, who place him above their two other divinities BRAHMA, VISHNU, and MAHA'DEVA, say the *Puranas*, were brothers and the *Egyptian* Triad, or OSIRIS, HORUS, and TYPHON, were brought forth by the same parent, though HORUS was believed to have sprung from the mysterious embraces of OSIRIS and ISIS before their birth as the *Vaisnavae* also imagine, that HARA, or MAHA'DEVA, sprang mystically from his brother HERI, or VISHNU. In the *Hindu* mythology, BRAHMA is represented of a red, VISHNU, of a black, or dark azure, and HARA of a white complexion, but in that of *Egypt*, we find OSIRIS black, HORUS white, and TYPHON red. The indiscriminate application of the title ISWARA has occasioned great confusion in the accounts which the *Greeks* have transmitted to us of *Egyptian* mythology, for the priests of *Egypt* were very reserved on subjects of religion; and the *Grecian* travellers had in general too little curiosity to investigate such points with scrupulous exactness. Since OSIRIS, however, was painted black, we may presume that he was VISHNU, who, on many occasions, according to the *Puranas*, took *Egypt* under his special protection. CAJANNA was VISHNU himself, according to the most orthodox opinion; and it was he who visited the countries adjacent to the *Nile*, destroyed the tyrant SANC'HASURA, introduced a more perfect mode of worship, cooled the conflagrations which had repeatedly defoliated those arid regions, and established the government of the *Cuttia-cisar*, or genuine *Egyptians*, on a permanent basis. Thus OSIRIS, as we are told by PLUTARCH,

(a) Plut. on *Ils* and *Osis*

taught

taught the old *Egyptians* to make laws, and to honour the Gods. The title *Sri-Bhagavat*, importing *prosperity* and *dominion*, is given peculiarly to *CHRISHNA*, or the *black deity*; and the *black Osiris* had also the titles of *Sirius*, *Serapis*, and *Bacchus*. It is related, indeed, that *OSIRIS*, or *BACCHUS*, imported from *India* the worship of two divine Bulls, and in this character he was *MAHA'DEVA*, whose followers were pretty numerous in *Egypt*: for *HERMAPION*, in his explanation of the hieroglyphicks on the *Heliopolitan* obelisk, calls *HORUS* the Supreme *Lord*, and the author of *Time*, (a) Now *ISWARA*, or *Lord*, and *CA'LA*, or *Time*, are among the distinguished titles of *MAHA'DEVA*, and obisks, or pillars, whatever be their shape, are among his emblems. In the *Vishad-baima*, which appears to contain many curious legends concerning *Egypt*, it is expressly said, that " *ISWARA*, with his consort *PA'RVATI*, descended from heaven, and chose for his abode the land " of *Mitra* in *Sanc'ha-dwip*" We must observe, that the *Egyptians* feared and abhorred *TYPHON*, or *MAHA'DEVA*, in his character of the *Destroyer*, and the *Hindus* also dread him in that character, giving him the name of *Bhairava*, or *Tremendous*. The *Egyptian* fable of his attempt to break the *Mundane Egg*, is applied to *MAHA'DEVA* in the little book *Chandi*, which is chiefly extracted from the *Marcandeya Purán*. There is a striking resemblance between the legendary wars of the three principal Gods in *Egypt* and *India*. As *OSIRIS* gave battle to *TYPHON*, who was defeated at length, and even killed, by *HORUS*, so *BRAHMA* fought with *VISHNU*, and gained an advantage over him, but was overpowered by *MAHA'DEVA*, who cut off one of his five heads, an allegory, of which I cannot pretend to give the meaning.

(a) Ammian. Marcellin

PLUTARCH asserts, that the priests of Egypt called the Sun their Lord and King, and their three Gods resolve themselves ultimately into him alone. Osiris was the Sun; Horus was the Sun; and so, I suppose, was TYPHON, or the power of destruction by heat; though PLUTARCH says gravely, that such as maintained that opinion were not worthy to be heard. The case was nearly the same in ancient India, but there is no subject on which the modern Brâbmens are more reserved; for, when they are closely interrogated on the title of *Déva*, or God, which their most sacred books give to the Sun, they avoid a direct answer, have recourse to evasions, and often contradict one another and themselves. They confess, however, unanimously, that the Sun is an emblem, or image, of their three great deities jointly and individually, that is, of BRAHM, or the Supreme One, who alone exists really and absolutely; the three male divinities themselves being only *Máyâ*, or illusion. The body of the Sun they consider as *Máyâ*, but since he is the most glorious and active emblem of God, they respect him as an object of high veneration. All this must appear very mysterious, but it flows from the principal tenet of the *Vidânta*, that the only being, which has absolute and real existence, is the Divine Spirit, infinitely wise, infinitely benign, and infinitely powerful, expanded through the universe, not merely as the soul of the world, but as the provident ruler of it, sending forth rays or emanations from his own essence, which are the pure vital souls of all animated creatures, whether moveable or immoveable, that is, (as we should express ourselves,) both animals and vegetables, and which he calls back to himself, according to certain laws established by his unlimited wisdom. Though Brâhma be neuter in the character of the Most High One, yet in that of Supreme Ruler, he is named PARAME-SWARA but through the infinite veneration to which he is entitled, the Hindus meditate on him with silent adoration, and offer prayers and sacrifice only to the higher emanations from him. In a mode incomprehensible

to inferior creatures, they are involved at first in the gloom of *Máyá*, and subject to various taints from attachment to worldly affections, but they can never be reunited to their source, until they dispel the illusion by self-denial, renunciation of the world, and intellectual abstractions, and until they remove the impurities which they have contracted, by repentance, mortification, and successive passages through the forms of animals or vegetables, according to their demerits. In such a reunion consists their final beatitude, and to effect it by the best possible means is the object of their supreme ruler, who, in order to reclaim the vicious, to punish the incorrigible, to protect the oppressed, to destroy the oppressor, to encourage and reward the good, and to show all spirits the path to their ultimate happiness, has been pleased (say the Bráhmens) to manifest himself in a variety of ways, from age to age, in all parts of the habitable world. When he acts immediately, without assuming a shape, or sending forth a new emanation, as when a divine sound is heard from the sky, that manifestation of himself is called *ácasaváni*, or an *etherreal voice*. When the voice proceeds from a meteor, or a flame, it is said to be *agnirúpi*, or *formed of fire*; but an *avatára* is a *descent* of the deity in the shape of a mortal, and an *avántara* is a similar incarnation of an inferior kind, intended to answer some purpose of less moment. The Supreme Being, and the celestial emanations from him, are *nirácará*, or *bodiless*, in which state they must be invisible to mortals, but when they are *pratyacshá*, or *obvious to sight*, they become *sácará*, or *embodied*, either in shapes different from that of any mortal, and expressive of the divine attributes, as CRISHNA revealed himself to ARJUN, or in a human form, which CRISHNA usually bore, and in that mode of appearing the deities are generally supposed to be born of woman, but without any carnal intercourse. Those who follow the *Púrva Mimánsá*, or philosophy of JAIMINI, admit no such incarnations of deities, but insist that the *Dévas* were mere mortals, whom

where the Supreme Being was pleased to endue with qualities approaching to his own attributes ; and the *Hindus*, in general, perform acts of worship to some of their ancient monarchs and sages, who were deified in consequence of their eminent virtues. After these introductory remarks, we proceed to the several manifestations, in *Egypt*, and other countries adjacent to the *Nile*, of *De'vî*, and the three principal Gods of the *Hindus*, as they are expressly related in the *Purâna*s, and other *Sanskrit* books of antiquity.

De'vî, or the *Goddess*, and *Ishî*, or the *Sovereign Queen*, is the *Isis* of *Egypt*, and represents *Nature* in general, but in particular the *Earth*, which the *Indians* call *Parî'mîrî*, while water and humidity of all kinds are supposed by the *Hindus* to proceed from *Vishnu*, as they were by the *Egyptians* to proceed from *Osiiris*. This account of *Isis* we find corroborated by *PLUTARCH*, and *SERVILIS* asserts, that the very word *Isis* means *Earth* in the language of the *Egyptians*; but this I conceive to be an error.

I It is related in the *Scânda*, that, when the whole earth was covered with water, and *Vishnu* lay extended asleep in the bosom of *De'vî*, a lotos arose from his navel, and its ascending flower soon reached the surface of the flood; that *Brahma* sprang from that flower, and, looking round, without seeing any creature on the boundless expanse, imagined himself to be the first born, and entitled to rank above all future beings; yet resolved to investigate the deep, and to ascertain whether any being existed in it, who could controvert his claim to pre-eminence. He glided, therefore, down the stalk of the lotos, and, finding *Vishnu* asleep, asked loudly who he was. "I am the first born," answered *Vishnu*, waking; and when *Brahma* denied his primogeniture, they had an obstinate battle, till *Maha'Deva* pressed between them in great wrath, saying, "It is I who am truly the first born, but I will resign my pretensions

"to either of you, who shall be able to reach and behold the summit of my head, or the soles of my feet." BRAHMA instantly ascended, but having fatigued himself to no purpose in the regions of immensity, yet loth to abandon his claim, returned to MAHA'DEVA, declaring that he had attained and seen the crown of his head, and calling, as his witness, the first born cow. For this union of pride and falsehood the angry god ordained, that no sacred rites should be performed to BRAHMA, and that the mouth of the cow should be defiled, and a cause of defilement, as it is declared to be in the oldest Indian laws. When VISHNU returned, he acknowledged that he had not been able to see the feet of MAHA'DEVA, who then told him, that he was really the first born among the Gods, and should be raised above all. It was after this that MAHA'DEVA cut off the fifth head of BRAHMA, whose pride (says the writer of the *Stânda Purân*) occasioned his loss of power and influence in the countries bordering on the river Gâlî. Whether these wild stories on the wars of the three principal Gods mean only the religious wars between the several sectaries, or whether they have any more hidden meaning, it is evident from the *Purânas*, which represent Egypt as the theatre of action, that they are the original legends of the wars between OSIRIS, HORUS, and TYPHON, for BRAHMA, in his character of all-destroying Time, corresponds with TYPHON, and MAHA'DEVA, in that of the productive principle, with HORUS or HARA, who assumes each of his characters on various occasions, either to restore the powers, or to subdue the opponents, of VISHNU, or active Nature, from whom his auxiliary springs. In Egypt (says PLUTARCH) certain sacrifices were made even to TYPHON, but only on particular days, and for the purpose of consoling him after his overthrow, as in India no worship is paid to BRAHMA, except on particular occasions, when certain offerings are made to him, but placed at some distance from the person who offers them. The Greeks have confounded TYPHON with PYTHON, whose history has no connection

with

with the wars of the Gods, and who will appear in the following Section to be the PAIT'HYNASI of the *Hindus*. The idea of MAHA'DEVA with his head in the highest heaven, and his feet in the lowest parts of the earth, is conformable to the language of the Oracle, in its answer to NICOCRATES, King of Cyprus

Oipām॒ निर्म॒ निराय॑—
Γαῖα δὲ μοι πάτερ—

And the same image is expressed, word for word, at the beginning of the fourth *Veda*, where the deity is described as *Mabópuruṣa*, or the Great Male.

In the story of the war between OSIRIS and TYPHON, mention is made by PLUTARCH of a stupendous *boar*, in search of whom TYPHON travelled, with a view, perhaps, to strengthen his own party, by making an alliance with him. Thus it is said, in the *Vaisnava-vágama*, that Crórájura was a demon, with the face of a *boar*, who, nevertheless, was continually reading the *Véda*, and performing such acts of devotion, that VISHNU appeared to him, on the banks of the *Brâmaputra*, promising to grant any boon that he could ask. Crórájura requested that no creature, then existing in the three worlds, might have power to deprive him of life; and VISHNU granted his request: but the demon became so insolent, that the Dévatis, whom he oppressed, were obliged to conceal themselves, and he assumed the dominion of the world. VISHNU was then sitting on a bank of the *Cén*, greatly disquieted by the malignant ingratitude of the demon, and, his wrath being kindled, a shape, which never before had existed, sprang from his eyes. It was MAHA'DEVA, in his destructive character, who *dispelled* in a moment the *anxiety* of VISHNU, whence he acquired the surname of CHINTA'HARA. With flaming eyes, contracted brows, and his whole countenance distorted with anger, he rushed toward Crórájura, seized him with

with fury, and carried him under his arm in triumph over the whole earth, but at length cast him lifeless on the ground, where he was transformed into a mountain, still called the Mountain of Cro'ra, or the Boar. The place where VISHNU sat by the river *Cili*, has the name of *Chintabara-f'bal*; and " all they " (says the author of the *Agama*) who are troubled with anxious thoughts, " need only meditate on CHINTA'HARA, and their cares will be dissipated " The word *Chintā* was, I imagine, pronounced *Xanthus* by the descendants of DARDANA'SA, or DARDANUS, who carried into their new settlements not only the name, but some obscure notions relative to the power of the deity CHINTA'HARA. The district of *Tress*, where they settled, was called also *Xanthi*. There was a town *Xanthus* in *Lycia*, and a nation of *Xanths*, or *Xantis*, in *Thrace*. A river of *Lycia* had that name; and so had another near *Troy*, in the waters of which grew a plant supposed capable of dispelling cares and terrors, which both *Greeks* and *Indians* believed to be caused by the presence of some invisible deity, or evil spirit, (a) The river *Xanthus*, near *Troy*, was vulgarly called *Scamander*, but its sacred name, used in religious rites, was *Xanthus*, as most rivers in *India* have different names, popular and holy XANTHUS, according to *HOMER*, was a son of JUPITER, or, in the language of *Indian* Mythology, an *avatāra*, or inferior manifestation, of SIVA. Others make him a son of the great TREMILUS, (b,) whom I should suppose to be JUPITER *Tremulus*, or rather *Tremelus*, worshipped at *Brennus*, in *Crete*, for the *Tremis*, or *Tremylas*, came originally from that island. According to STEPHANUS of *Byzantium*, the native country of XANTHUS was *Egypt*, (c,) and on the shores of the *Atlan-*
tic there were monsters shaped like bulls, probably sea-cows, called *Xanthus*. A poet, cited by STEPHANUS under the word *Tremile*, says, that

(a) Plut. on Rivers, art. *Scamander* (b) Steph. *Byzant.* *Tremule*.

(c) See the word *Xanthus*.

XANTHUS, son of JUPITER, travelled with his brothers over the whole world, and did a great deal of mischief; that is, according to the Purâns, destroyed the insolent CRÔRA'SURA, who was probably revered in the more western countries, where VARA'HIS'WARA once reigned, according to the Hindus, and where they believe his posterity still to live in the shape of white varâbas, or bears. The legend of the wars between those varâbas and the sarabbas, a sort of monster, with the face of a hoo, and wings like a bird, shall be explained in another essay on *Varâba-dwîp*; and I shall only add in this place, that the war was represented, according to Hasid, on the shield of HERCULES. At present the place where the temple of AMMON formerly stood, has the name of *Santasiab*, which may be derived from some altar anciently dedicated to CHINTA'HARA.

II We are told in the *Nârada Purân*, that SO'RYA, the regent of the Sun, had chosen a beautiful and well-peopled country in *Sanc'ba-dwîp*, for the purpose of performing his devotions, but that he had no sooner begun than the whole region was in flames, the waters dried up, and all its inhabitants destroyed, since which it has been denominated *Barbara*. The Dévâs, it is added, were in the greatest distress, and VISHNU descended, with BRAHMA, to expostulate with the author of the conflagration. SU'RYA praised and worshipped them, but lamented that his devotion had not prospered, and promised to repair the injuries done by his flames. "It is I (said VISHNU) "who must repair them, and when I shall revisit this country in the "character of CRISHNA, to destroy the demon SANC'-HA'SURA, the land shall "cool, and be replenished with plants and animals. The race of Pâlis shall "then settle here, with the *Cutîla-céjas*, the *Tavanas*, and other *Mlech'ha* "tribes."

In the *Uttara-charitra*, and other ancient books, we find many stories concerning Su'RYA, some of which have a mixture of astrological allegory. Once, it seems, he was performing acts of austere devotion, in the character of TAPANA, or the *Inflamer*, when his consort PRASHA', or *Brightness*, unable to bear his intense heat, assumed the form of CH'HA'YA', or *Shadow*, and was impregnated by him. After a period of a hundred years, when gods and men, expecting a terrible offspring, were in the utmost consternation, she was delivered of a male child, in a remote place, afterwards called Arki-*bān*, or Sauri-*bān*, from *Arci* and *Saxi*, the patronymicks of ARCA and SU'RYA. He was the genius of the planet which the *Lattans* called SATURN, and acquired among the Hindus the epithet of SANI, and SANAI-SCHARA, or *slow-moving*. For twelve years, during his education at Arki-*bān*, no rain fell, but a destructive wind blew continually, and the air blazed with tremendous meteors. A dreadful famine ensued, and the *Devatās*, together with the *Dāityas*, implored the protection and advice of SU'RYA, who directed them to propitiate SANI, by performing religious rites to VISHNU, near the *pippal* tree, which is an emblem of him, and assured them, that, in future ages, the malignant influence of the planet should prevail only during its passage through four signs of the *Ayavā'is*, or *Zodiac*. The reign of SU'RYA in *Barbara* continued long, but he resigned his dominion to SANI, whose government was tyrannical. All his pious and prudent subjects fled to the hilly countries, bordering on the river *Nandī*; while the irreligious and rash perished in the *deserts of burning sand*, to which the baneful eyes of the tyrant reduced all the plains and meadows on which he looked. His father, returning to visit his ancient realm, and seeing the desolation of the whole country, expelled SANI, and sent for another of his sons, named AURVA, who, being appointed successor to his brother, purified the land, recalled the holy men from the hills, and made his subjects happy in ease and abundance, while he

resided at *Auro-s-f'hán*, so called from his name; but he returned afterwards to *Vabn-s-f'hán*, the present *Azárbiyá*, or the *Stat of Fire*, in the interior *Cufádwipa*, where he was performing his devotions on *Triúngas*, or the mountain with three peaks, at the time when his father summoned him to the government of *Bárbara*. Just before that time he had given a dreadful proof of his power, for as *ARA'MA*, the son of a son of *SATTAVRA'TA*, (and consequently the *ARAM* of Scripture,) was hunting in that country with his whole army, near a spot where *DURVA'sAS*, a choleric saint, and a supposed *acántar* of *Maha'déva*, was sitting rapt in deep meditation, *ARAMA* inadvertently shot an arrow, which wounded the foot of *DURVA'sAS*, who no sooner opened his eyes, than *AURVA* sprang from them, in the shape of a flame, which consumed *ARAMA* and his party, together with all the animals and vegetables in *Cufádwipa*. It seems to me that *AURVA* is *VULCAV*, or the God of Fire, who reigned, according to the *Egyptian* priests, after the *Sun*, though some have pretended, says *Diodorus*, that he had existed before that luminary; as the *Hindus* alledge, that *AGNI*, or Fire, had existence in an elementary state before the formation of the *Sun*, but could not be said to have dominion till its force was concentrated. In another character he is *ORUS* the Elder, or *APOLLO*, a name derived, I imagine, from a *Senfris* word, implying a power of *dispelling humidity*. No doubt, the whole system of *Egyptian* and *Indian* mythology must at first view seem strangely inconsistent, but, since all the Gods resolve themselves into one, of whom they were no more than *forms* or *appearances*, it is not wonderful that they should be confounded, especially as every emanation from the Supreme Spirit was believed to send forth collateral emanations, which were blended with one another, sometimes recalled, sometimes continued or renewed, and variously reflected or refracted in all directions. Another source of confusion is the infinite variety of legends which were invented from time to time in

Greece, Egypt, Italy, and India; and when all the causes of inconsistency are considered, we shall no longer be surprised to see the same appellations given to very different deities, and the same deities appearing under different appellations. To give an example in SATURN the planet of that name is the SANI of India, who (says DIODORUS) was considered by the Chaldeans as the most powerful of the heavenly bodies, next to the Sun, but his influence was thought baneful, and incantations, with offerings of certain perfumes, were used to avert or to mitigate it. When the name is applied to CHROVOS, the Father of the Gods, it means CA'LA, or Time, a character both of MAHADIVA and BRAHMA', but when he is called CHRONOS, he seems to be the gigantick CRAUVCHA of the Hindus, while the SATURN of Latium, and of the Golden Age, appears to be quite a different person; and his title was probably derived from SATY- AVERNA, which implies an age of veracity and righteousness. BRAHMA' with a red complexion is worshipped (say the Purânas) in the dwip of Puscarâ, which I suppose to be a maritime country at no great distance from Egypt. He was there called the First-born of Nature, Lord of the Universe, and Father of Deities and the mythology of Puscarâ having passed into Greece, we find CHRONOS represented in those characters, but mild and beneficent to the human race, with some features borrowed from the older system, which prevailed on the banks of the Nile and the Ganges. I cannot help suspecting that the word Câla was the origin of COELUS, or Coelus, as ENVIUS wrote it, and the ARMAN of the Jains, who was a form of MAHA CA'LA, might originally have been the same with URANIA. As to RHEA, there can be no doubt that she is the Goddess RI, whom the Hindus call the Mother of the Gods but some say that she also produced malignant beings and PLINY tells us that she was the mother of TYPHON, who became sovereign of Egypt, (a,) but was

(a) Lib. 2. Cap. 25, &c

deposed and expelled by AVERIS or HORUS, where we have precisely the story of SANI and AURVA. We cannot but observe, that the succession of the Gods in *Egypt*, according to MANETHO, is exactly in the spirit of *Hindus* mythology, and conformable, indeed, to the *Parânas* themselves; and we may add, before we leave the planets, that, although VREHASPETI, an ancient legislator and philosopher, is commonly supposed to direct the motions of JUPITER, which now bears his name, yet many of the *Hindus* acknowledge that SIVA, or the God JUPITER, shines in that planet, while the Sun is the peculiar station of VISHNU, and SATURN is directed by BRAHMA¹, whom, for that reason, the *Egyptians* abhorred, not daring even to pronounce his true name, and abominating all animals with red hair, because it was his colour.

There is something very remarkable in the number of years during which ARCA and his son reigned on the banks of the *Cæl*. The Sun, according to the *Brâbmens*, began his devotion immediately after the flood, and continued it a hundred years. SANI, they say, was born a hundred years after his conception, and reigned a hundred years, or till the death of A'RA'M, who must therefore have died about three hundred years after the deluge, and fifty years before his grandfather, but the *Paârenics* insist that they were years of BRAHMA¹. Now one year of mortals is a day and night of the Gods, and 360 of our years is one of theirs 12,000 of their years, or 4,320,000 of ours, constitute one of their ages, and 2000 such ages are BRAHMA's day and night, which must be multiplied by 360 to make one of his years so that the chronology of *Egypt*, according to the *Brâbmens*, would be more extravagant than that of the *Egyptians* themselves, according to MANETHO. The *Talmud* contains notions of divine days and years, founded on passages in Scripture ill understood. The period of 12,000 years was *Etruscan*, and that of 4,320,000

was formed in *Chaldea* by repetitions of the *jaras*. The *Turdetani*, an old and learned nation in *Spain*, had a long period nearly of the same kind. But for particular inquiries into the ancient periods, and the affinity between them, I must refer to other essays, and proceed to the geography of *Egypt*, as it is illustrated by the *Indian* legends.

The place where the Sun is feigned to have performed his acts of religious austerity, is named the *śrībhār*, or station, of ARKA, SŪRYA, and TAPANA. As it was on the limit between the *dwipas* of *Cub* and *Sanc'ba*, the Purāns ascribed it indifferently to either of those countries. I believe it to be the *Tappanis* of Scripture, called *Taphna*, or *Taphnas*, by the seventy Interpreters, and *Daphne* in the *Roman* Itinerary, where it is placed sixteen miles from *Pelusium*. It is mentioned by Herodotus, under the name of *Daphnae Pelusiae*, (a,) and by Stephanus under that of *Daphne* near *Pelusium*, but the moderns have corrupted the name into *Safnas*.

Sauri-śrībhān, where SANI was born and educated, seems to have been the famed *Beth Shemeṣb*, or *Heliopolis*, which was built (says Diodorus) by AETIS, in honour of his father the Sun, (b.) AETIS first taught astronomy in *Egypt*, and there was a college of astronomers at *Heliopolis*, with an observatory and a temple of the Sun, the magnificence and celebrity of which might have occasioned the change of the ancient name into *Sūrya-śrībhān*, as it was translated by the *Hebrews* and *Greeks*. It is said by the *Hindus*, that SANI, or ARKI, built

(a) B. 2 C. 30.

(b) B. 6 C. 18.

several places of worship in the regions adjacent to the *Cat*?; and we still find the town of *Arkico* near the Red Sea, which is not mentioned, indeed, by any of the Grecian geographers, but the headland contiguous to it is called, by PTOLEMY, the Promontory of SATURN. The genius of SATURN is described in the *Parans* as clad in a black mantle, with a dark turban loosely wrapped round his head, his aspect hideous, and his brows knit with anger, a trident in one of his four hands, a cimeter in a second, and in the two others, a bow and shafts. The priests of SATURN in *Egypt*, where his temples were always out of the towns, are said by EPIPHANIUS to have worn a dress nearly similar

To conclude this head, we must add, that the *β'βάς* of AURVA is now called *Arfa* by the *Copts*, (a,) but as AURVA corresponded with ORUS, or APOLLO, the Greeks gave it the name of *Apollonopolis*.

III The metamorphosis of LUNUS into LUNA was occasionally mentioned in the preceding Section, but the legend must now be told more at length. The God SO'MA, or CHANDRA, was traversing the earth with his favourite consort RO'HINI, and, arriving at the southern mountain, *Sabyādrī*, they unwarily entered the forest of *Gaurī*, where some men having surprised MA-HADE'VA caressing that Goddess, had been formerly punished by a change of their sex, and the forest had retained a power of effecting the like change on all males who should enter it. CHANDRA, instantly becoming a female, was so afflicted and ashamed, that she hastened far to the west, finding RO'HINI to her seat in the sky, and concealed herself in a mountain, afterwards named Sōma-giri, where she performed acts of the most rigorous devotion. Darkness

(a) Lett. Edif. vol. 5. p 257

then

then covered the world each night the fruits of the earth were destroyed, and the universe was in such dismay, that the *Dévas*, with BRAUMA at their head, implored the assistance of MAHA'DEVA, who no sooner placed CHANDRI on his forehead, than she became a male again, and hence he acquired the title of *Chandrasé'hara*. This fable has been explained to me by an ingenious *Pandit*. To the inhabitants of the countries near the source of the Gád, the Moon being in the mansion of *Robint*, or the *Pleiads*, seemed to vanish behind the southern mountains. Now, when the Moon is in its opposition to the Sun, it is the god CHANDRA; but when in conjunction with it, the goddess CHANDRI, who was in that state feigned to have conceived the *Palindas* mentioned in the former Section. The Moon is believed by the *Hindu* naturalists to have a powerful influence on vegetation, especially on certain plants, and, above all, on the *Sómalatá*, or *Moon-plant*; but its power, they say, is greatest at the *purnimá*, or full, after which it gradually decays, till, on the dark *tirbi*, or *amavásyá*, it wholly vanishes. This mode of interpretation may serve as a clew for the intricate labyrinth of the *Purána*s, which contain all the history, physiology, and science of the *Indians* and *Egyptians*, disguised under similar fables. We have already made remarks on the region and mountains of the Moon, which the *Purána*s place in the exterior *Cubadwip*, or the southern parts of *Africa*, and we only add, that the *Palindas* consider the female Moon as a form of the celestial *I'si*, or *Isis*, which may seem to be incompatible with the mythological system of *India*; but the *Hindus* have, in truth, an *Isis* with three forms, called *SWAR-DÉVI* in heaven, *BHU-DÉVI* on earth, and *PA'TALA-DÉVI* in the infernal regions. The consort of the Terrestrial Goddess is named *BHU-OÉVA*, who resides on *SUMÉRU*, and is a vicegerent on earth of the three principal deities. He seems to be the *Bdu's* of the Greek Mythologists, and the *BUDVAS* of *ARIAN*, though the *Grecian* writers have generally confounded him with *BUODHAA*.

IV. When this earth was covered with waters, MAHA'CA'LA, who floated on their surface, beheld a company of *Apsojas*, or *Nymphs*, and expressed with such force his admiration of their beauty, that MAHA'CA'LĀ, his consort, was greatly incensed, and suddenly vanished. The God, stung with remorse, went in search of her, and with hasty strides traversed the earth, which then had risen above the waters of the deluge, as they were dried up or subsided, but the ground gave way under the pressure of his feet at every step, and the balance of the globe was nearly destroyed. In this distress he was seen by the relenting CA'LĀ on the side of *Srirangapattana*, and considering the injury which the universe would sustain by her concealment, she appeared in the character of RA'JARAJE'SWARI', and in the form of a damsel more lovely than an *Apsoja*, on the banks of a river since named CA'LĀ. There at length he saw and approached her in the character of RA'JARAJE'SWARA, and in the shape of a beautiful youth. They were soon reconciled, and travelled together over the world, promoting the increase of animals and vegetables, and instructing mankind in agriculture and useful arts. At last they returned to *Cubha-dwip*, and settled at a place which from them was named the *St'hān* of RA'JARAJE'SWARA and RA'JARAJE'SWARI', and which appears to be the *Nysa* of *Arabia*, called *Eilm* in Scripture, and *El Fir* by modern geographers; but *Al Fir* belongs properly to the interior *dvip* of *Cubha*. They resided long in that station, conversing familiarly with men, till the iniquities of later generations compelled them to disappear, and they have since been worshipped under the titles of ISA NA, or ISA, and ISA'NI, or ISR'

Since the goddess Isis made her first appearance in *Egypt*, that country is called her *nursing mother* in an inscription mentioned by DIODORUS, and said to have been found on a pillar in *Arabia*. She was reported by the *Egyptians* to have been *Queen* of that country, and is declared in the *Purâns* to have reigned

over *Cyphi-dvip mūshis*, as her consort has the title, in the *Arabian inscription*, of *King Osirii*; conformably, in both instances, to the characters under which they appeared on the banks of the *Nile*. The place where *Iris* was first visible became of course an object of worship, but, as it is not particularly noticed by the mythologists of the west, we cannot precisely ascertain its situation. It was probably one of the places in the Delta, each of which was denominated *Isaum*, and I think it was the town of *Iris*, near *Sebemytus*, (a,) now called *Bha-heti*, where the ruins of a magnificent temple, dedicated to *Iris*, are still to be seen. As *Ystris* came from the western peninsula of *Indis*, he was considered in *Egypt* as a foreign divinity, and his temples were built out of the towns.

V BRAVA, the author of *existence*, and consort of AMBA', the *Magna Mater* of the western mythologists, had resolved to set mankind an example of performing religious austerities, and chose for that purpose an *Aranya*, or uninhabited forest, on the banks of the *Nile*, but AMBA', named also BRAVA'NTI and UM'A, being uneasy at his absence, and guessing the place of his retirement, assumed the character of ARANKA-DE'VI', or Goddess of the Forest, and appeared sporting among the trees at a place called afterwards Cāmavasa, or the Wood of De-fire, from the impression which her appearance there made on the amorous deity. They retired into an *Atavi*, or impervious forest, whence the Goddess acquired also the title of ATAVI-DE'VI', and the scene of their mutual carefes had the name of Bhavaravī-śāhāna, which is mentioned in the *Vidas*. The place of their subsequent residence near the *Nile* was denominated Citrāvasa, or the Grove of

(a) Tab. Peutinger Plin Steph Byzantium.

Dalliance, and that where BHAVA was interrupted in his devotions, was at first called *Bhava-śh'án*, and seems to be the celebrated *Bubastis*, or, in the oblique case, *Burbastus*, peculiarly sacred to DIANA, the Goddess of Woods. From *Bhvátevi*, which was at some distance from the *Nile*, in the midst of an impervious forest, the Greeks made *Buto* in the oblique case, whence they formed *Buto* and *Butilis* and there also stood a famous temple of DIANA. The situation of *Cirávana* cannot be so easily ascertained, but it could not have been far from the two last-mentioned places, and was probably in the Delta, where we find a most distinguished temple of VENUS at *Apbrodisopols*, (a,) now *Ater-bekki*, which, according to STEPHANUS of *Byzantium*, was at no great distance from *Arsibi*. The Goddess had, indeed, laid aside the character of DIANA when BHAVA perceived her, and assumed that of BHAVA'NI, or VENUS. The three places of worship here mentioned were afterwards continually visited by numerous pilgrims, whom the *Brabmánda-purón*, from which the whole fable is extracted, pronounces entitled to delight and happiness both in this world and the next.

BHÁVEŚWARA seems to be the *Busiris* of *Egypt*, for STRABO asserts, positively, that no *Egyptian* king bore that name; though altars, on which men were anciently sacrificed, were dedicated to *Busiris*; and the human victims of the *Hindus* were offered to the comfort of BHÁVEŚWARA. The *Naraméda*, or sacrifice of a man, is allowed by some ancient authorities; but since it is prohibited under pain of the severest torture in the next world, by the writers of the *Bráhma*, of the *Aditya-purón*, and even of the *Bhágavat* itself, we cannot imagine that any *Bráhmaṇa* would now officiate at so horrid a ceremony; though it is asserted by

some, that the *Pámaras*, or *Parisi* nations, in different parts of *India*, disregard the prohibition; and that the *Cárbaras*, who were allowed by *PARA'SU-RA'MA* to settle in the *Cincas*, to sacrifice a man, in the course of every generation, to appease the wrath of *RE'NUCA'-O'EV'I'*

Before we quit the subject of *Atavi*, we must add two legends from the *Bráhmaṇa*, which clearly relate to *Egypt*. A just and brave king, who reigned on the borders of *Himálaya*, or *Imaus*, travelled over the world to destroy the robbers who then infested it, and, as he usually surprised them by night, he was farnamed *NACTAMCHARA*. To his son *Nis'a'CHARA*, whose name had the same signification, he gave the kingdom of *Barbara*, near the Golden Mountains, above *Syene*, and *Nis'a'CHARA* followed, at first, the example of his father, but at length grew so insolent as to contend with *INDRA*, and oppressed both *Dévas* and *Dángvas*, who had recourse to *Ataví'-DE'VI'*, and solicited her protection. The Goddess advised them to lie for a time concealed in *Sverga*, by which we must here understand the *mountains*, and when the tyrant rashly attempted to drive her from the banks of the *Nile*, she attacked and slew him. The *Dévas* then returned singing her praises, and on the spot where she fought with *Nis'a'CHARA* they raised a temple, probably a pyramid, which from her was called *Ataví-mandira*. Two towns in *Egypt* are still known to the *Copts* by the names of *Atfi*, *Atfib*, and *Itfu*, and to both of them the *Greeks* gave that of *Aphroditopolis*. The district round the most northerly of them is to this day named *Ibrit*, which M D'ANVILLE with good reason thinks a corruption of *Aphrodite*, but *Ataví-mandir* is *Atfi* to the south of *Alkábirab*, not the *Atfi* or *Itfu* near *Thebes*, which also is mentioned in the *Parásas*, and said to have stood in the forests of *Tapas*.

Another title of the Goddess was ASHTA'RA', which she derived from the following adventure. *Vijaya'swa*, or *victorous on horseback*, was a virtuous and powerful king of the country round the *Nishadha* Mountains; but his first minister, having revolted from him, collected an army of *Mleeb'has* in the hills of *Gandha-mádan*, whence he descended in force, gave battle to his master, took him prisoner, and usurped the dominion of his country. The royal captive, having found means to escape, repaired to the banks of the *Cál*, and fixing eight sharp iron spikes in a circle at equal distances, placed himself in the centre, prepared for death, and resolved to perform the most rigorous acts of devotion. Within that circle he remained a whole year, at the close of which the Goddess appeared to him, issuing like a flame from the eight iron points, and presenting him with a weapon called *Aftára-mudgara*, or a staff armed with eight spikes fixed in an iron ball, she assured him, that all men, who should see that staff in his hand, must either save themselves by precipitate flight, or would fall dead and mangled on the ground. The king received the weapon with confidence, soon defeated the usurper, and erected a pyramid in honour of the Goddess, by the name of ASHTA'RA'-DR'VI'. The writer of the *Purána* places it near the *Cál* river in the woods of *Tapas*, and adds, that all such as visit it will receive assistance from the Goddess for a whole year. *Aftan* means *eight*, and the word *ára* properly signifies the *spoke of a wheel*, yet is applied to any thing resembling it, but, in the popular Indian dialects, *afta* is pronounced *at*, and the appearance, which STRABO mentions, of the Goddess APIRODITE under the name of ATTARA, must, I think, be the same with that of ASHTA'RA'. The *Aftaroth* of the Hebrews, and the old Persian word *afárab*, now written *fitárab*, (or a *star with eight rays*,) are most probably derived from the two *Sanskrit* words. Though the place where *Vijaya'swa* raised his pyramid, or temple, was named *Aftára-*
ft'bán

f'bán, yet, as the Goddess to whom he inscribed it was no other than ATAVÍ-dvó, it has retained among the *Copts* the appellation of *Afî*, or *Afîs*, and was called *Apribistropolis* by the *Greeks*: it is below Akhmim, on the western bank of the *Nile*.

VI Among the legends concerning the transformation of Dr'ví, or *Φείδης*, we find a wild astronomical tale in the *Násatya Saṅhitá*, or History of the Indian Castor and Pollux. In one of her forms, it seems, she appeared as PRABHA', or *Lights*, and assumed the shape of *Aśvînd*, or a *mare*, which is the first of the lunar mansions. The Sun approached her in the form of a horse, and he no sooner had touched her nostrils with his, than she conceived *the twins*, who, after their birth, were called *Aśvini-cumára*, or the *twins of Aśvînî*. Being left by their parents, who knew their destiny, they were adopted by BRAHMA', who entrusted them to the care of his son Dacscha, and, under that sage preceptor, they learned the whole *Ayurveda*, or system of medicine. In their early age they travelled over the world, performing wonderful cures on gods and men; and they are generally painted on horseback, in the forms of beautiful youths, armed with javelins. At first they resided on the *Cula* Mountains, near *Colchis*, but INDRA, whom they had instructed in the science of healing, gave them a station in *Egypt*, near the river *Cálî*, and their new abode was from them called *Aśvî f'bán*. As medicated baths were among their most powerful remedies, we find near their seat a pool, named *Abhimatada*, or *granting what is desired*, and a place called *Rúpa-yeuvana-f'bala*, or the *land of beauty and youth*. According to some authorities, one of them had the name of Aśvî, and the other of CUMA'R, one of NÁSATYA, the other of DASRA, but, by the better opinion, those appellations are to be used in the dual number, and applied to them both. They are also called *ASWANA'SAU*, or *ASWACANA'SAU*, because their mother

conceived them by her *nephilim*. but they are considered as united so intimately, that *each seems either*, and they are often held to be one individual deity. As twin brothers, the two DABRAS, or CUMA'KAS, are evidently the Droscoi of the Greeks; but when represented as an individual, they seem to be AEsculapius, which my *Pandit* supposes to be Aświculapa, or *Chief of the race of Aswa*. That epithet might, indeed, be applied to the Sun, and AEsculapius, according to some of the western mythologists, was a form of the Sun himself. The adoption of the twins by BRAHMA, whose favourite bird was the phoenicopteros, which the *Europeans* changed into a swan, may have given rise to the fable of LEDA but we cannot wonder at the many diversities in the old mythological system, when we find in the *Purána*s themselves very different genealogies of the same divinity, and very different accounts of the same adventure.

AESCALAPIUS, or ASCLEPIUS, was a son of APOLLO; and his mother, according to the *Phenicians*, was a goddess, that is, a form of Dr'vr'. He too was abandoned by his parents, and educated by AUTOLAUS, the son of ARCAE,
 (a) The *Aświculapas*, or *Aślepsades*, had extensive settlements in *Theffaly*,
 (b,) and, I believe, in *Messenia*. The word *Aśwind* seems to have given a name to the town of *Aśbynis*, now *Asfun*, in Upper *Egypt*, for *Aswa*, a *Horse*, is indubitably changed by the *Perians* into *Aś*, or *Aś-* but *Aśw-f'bán* was probably the town of *Abydus* in the *Thebas*; and might have been so named from *Abbida*, a contraction of *Abhimatada* for STRABO informs us, that it was anciently a very large city, the second in *Egypt*, after *Thebes*, that it stood about seven miles and a half to the west of the *Nile*, that a celebrated tem-

(a) Pausan. B. 7 C. 23. (b) Pausan. B. 8 C. 25.

ple of Ostris was near it, and a magnificent edifice in it, called the palace of Memnon, that it was famed also for a well, or pool of water, with winding steps all round it; that the structure and workmanship of the reservoir were very singular, the stones used in it of an astonishing magnitude, and the sculpture on them excellent, (a.) Herodotus insists that the names of the Dioscuri were unknown to the Egyptians, but since it is positively asserted in the Puranas, that they were venerated on the banks of the Nile, they must have been revered, I presume, in Egypt under other names. Indeed, HARPOCRATES and HALITOMENION, the twin sons Osiris and Isis, greatly resemble the Dioscuri of the Grecian Mythologists.

VII Before we enter on the next legend, I must premise, that *īda*, pronounced *īra*, is the root of a Sanscrit verb signifying *praise*, and synonymous with *īla*, which oftener occurs in the *Veda*. The *Rigveda* begins with the phrase *Agnim īlē*, or, *I sing praise to fire*. VISHNU then had two warders of his ethereal palace, named JAYA and VIJAYA, who carried the pride of office to such a length, that they insulted the seven *Mabaribis*, who had come, with SANACA at their head, to present their adorations but the offended *Rishis* pronounced an imprecation on the insolent warders, condemning them to be *adbhyoni*, or *born below*, and to pass through three mortal forms before they could be re-admitted to the divine presence. In consequence of this execration, they first appeared on earth as HIRANYACASHA, or *Golden-eyed*, and HIRANYACASIPU, or *Glad in gold*, secondly, as RA'VANA and CUMBHACARVA, and lastly, as CANSA and SIS'UPA'LĀ.

In their first appearance they were the twin sons of CAS'YAPA and DITI. Before their birth, the body of their mother blazed like the sun, and the *Dēvatas*,

(a) Strabo, B 9 p 434, 438

unable to bear its excessive *boss* and *light*, retired to the banks of the *Ganges*, refusing to be concealed till she was delivered, but the term of her gestation was so long, and her labour so difficult, that they remained a thousand years near the holy river, employed in acts of devotion. At length Dēvi' appeared to them in a new character, and had afterwards the title of *YDIT'A*, or *YLITA'*, because she was *praised* by the Gods in their hymns, when they implored her assistance in the delivery of Diti. She granted their request, and the two *Dasyas* were born, after which *YLITA'-DEVI'* assured mankind, that any woman, who should fervently invoke her in a similar situation, should have immediate relief. The *Dēvas* erected a temple in the place where she made herself visible to them, and it was named the *ṭhān* of *YLITA'*, or *YLITA*, which was probably the town of *Iditya*, or *Ilitya*, in Upper Egypt, where sacred rites were performed to *EIRTHYA*, or *ELEUTHO*, the *LUCINA* of the *Latians*, who assisted women in labour. It stood close to the *Nile*, opposite to Great *Apollonopolis*, and seems to be the *Leucoscea* of *PLINY*. This goddess is now invoked in *India* by women in childbed, and a burnt-offering of certain perfumes is appropriated to the occasion.

VIII We read in the *Mahab-kimbleya-t'banda*, that, after a deluge, from which very few of the human race were preserved, men became ignorant and brutal, without arts or sciences, and even without a regular language; that part of *Sanc'ba-dwip*, in particular, was inhabited by various tribes, who were perpetually disputing, but that *Iswāra* descended among them, appeased their animosities, and formed them into a community of citizens *mixed* without invidious distinctions, whence the place where he appeared was denominated *Mitra-ṭhān*, that he sent his consort *VĀGEŠWARI'*, or the Goddess of Speech, to instruct the rising generations in arts and language, for which purpose she also visited the *dwip* of *Cusha*. Now the ancient city of *MISRA* was *Mempis*, and when the seat of government was transferred to the opposite side

of the river, the new city had likewise the name of *Misr*, which it still retains; for *Alkhabrab*, or the Conquerors, vulgarly *Cairo*, is merely an *Arabick* epithet.

VA'G'I'SWARA, or VA'G'I'SA', commonly pronounced BAG'I'SWAR and BA'G'I'SA', means the Lord of *Speech*, but I have seen only one temple dedicated to a god with that title. It stands at *Gangāpur*, formerly *Debtoreea*, near *Bazores*, and appears to be very ancient. The image of VA'G'I'SWARA, by the name of SIRO'DE'VA, was brought from the west by a grandson of CE'TU-MISRA, descended from GAUTAMA, together with that of the God's consort and sister, vulgarly named BASSART, but the Brāhmens on the spot informed me, that her true name was BA'G'I'SWARA'. The precise meaning of SIRO'DE'VA is not ascertained if it be not a corruption of SRI'DE'VA, it means the God of the *Head* but the generality of Brāhmens have a singular dislike to the descendants of GAUTAM, and object to their modes of worship, which seem, indeed, not purely *Indian*. The priests of BA'G'I'SWARA, for instance, offer to his consort a lower mantle with a red fringe, and an earthen pot shaped like a coronet. To the god himself they present a vase full of arak and they even sacrifice a hog to him, pouring its blood before the idol, and restoring the carcase to its owner, a ceremony which the *Egyptians* performed in honour of BACCHUS OSIRIS, whom I suppose to be the same deity, as I believe the *Bassaris* to have been so named from *Bassari*. Several demigods (of whom CICERO reckons five) (a) had the name of BACCHUS, and it is not improbable that some confusion has been caused by the resemblance of names. Thus BA'G'I'SWARA was changed by the *Greeks* in BACCHUS OSIRIS; and

(a) De Nat Deor

when they introduced a foreign name, with the termination of a case in their own tongue, they formed a nominative from it; hence from BHAGAWAN also they first made BACCHON, and afterwards BACCHOS, and, partly from that strange carelessness conspicuous in all their inquiries, partly from the reserve of the *Egyptian* priests, they melted the three divinities of *Egypt* and *India* into one, whom they miscalled OSIRIS. We have already observed, that YSIRIS was the truer pronunciation of that name, according to HELLANICUS, though PLUTARCH insists that it should be SIRIS or SIRIUS but YSIRIS, or ISWARA, seems in general appropriated to the incarnations of MAHA'DEVA, while SIRIS or SIRIUS was applied to those of VISHNU.

IX. When the Pāndavas, according to the *Vṛtihadbhama*, wandered over the world, they came to the banks of the Cāl river, in *Sanc'ha-dwīp*, where they saw a three-eyed man sitting with kingly state, surrounded by his people, and by animals of all sorts, whom he was instructing in several arts, according to their capacities. To his human subjects he was teaching agriculture, elocution, and writing. The descendants of PANDU, having been kindly received by him, related their adventures at his request, and he told them, in return, that, having quarrelled, in the mansion of BRAHMA', with DAKSHA, his father-in law, he was cursed by MANU, and doomed to take the form of a Mānava, or man, whence he was named on earth A'MAN'E'SWARA, that his faithful consort transformed herself into the river Cāl, and purified his people, while he guided them with the staff of empire, and gave them instruction, of which he had found them in great need. The place, where he resided, was called A'manewara-s'f'bān, or the seat of A'MAN, or A'MOV, which can be no other than the *Amonus* of Scripture, translated *Diospolis* by the Seventy Interpreters, but it was *Diospolis* between the canals of the Delta, near

the sea and the lake *Mausoll*, for the Prophet Nahum (a) describes it as a town *situated among rivers, with waters round about it, and the sea for its rampart*, so that it could not be either of the towns named also *Diospolis* in Upper Egypt; and the Hindu author says expressly, that it lay to the north of Hemadri.

Having before declared my opinion, that the *Noph* of the three greater *Prophets* was derived from *Nabba*, or the *sky*, and was properly called *Nabba-īswara āś'ban*, or *Nabba-āś'ban*, I have little to add here. Hosea once calls it *Moph*, (b,) and the *Chaldean* paraphraſt, *Mapbes*, while *Rabbi Kiuchi* affirms, that *Moph* and *Noph* were one and the same town. The Seventy always render it *Memphis*, which *Copts* and *Arabs* pronounce *Menuf* or *Menf*, and though I am well aware that some travellers, and men of learning, deny the modern *Menf* to be on the site of *Memphis*, yet in the former Section I have given my reasons for dissenting from them, and observed, that *Memphis* occupied a vast extent of ground along the *Nile*, consisting, in fact, of several towns or divisions, which had become contiguous by the accession of new buildings. May not the words *Noph* and *Menf* have been taken from *Nabba* and *Ménava*, since *Nabbómánava*, as a title of *Iswaka*, would signify the *celestial man*? The Egyptian priests had nearly the same story which we find in the *Purâns*, for they related, that the ocean formerly reached to the spot where *Memphis* was built by king *Mines*, *Minas*, or *Minivas*, who forced the sea back, by altering the course of the *Nile*, which, depositing its mud in immense quantities, gradually formed the *Delta*.

(a) Ch. 3 v. 8.

(b) Ch. 9. v. 6

Heliopolis, distinguished by the epithet *great*, was a name of *Thebes*, which was also called the City of the Sun, (a) from a celebrated temple dedicated to that luminary, which I suppose to be the *Suryasvara-f'bán* of the old Hindoo writers. The following legend concerning it is extracted from the *Bháskara mābhātmya*. The son of SO'MARA'JA, named PUSHPAEK'TU, having inherited the dominions of his father, neglected his publick duties, contemned the advice of his ministers, and abandoned himself to voluptuousness; till BHÝ'MA, son of PA'MARA, (or of an *outcast*,) descended from the hills of *Nilátri*, and laid siege to his metropolis. The prince, unable to defend it, made his escape, and retired to a wood on the banks of the *Cáit*. There, having bathed in the sacred river, he performed penance for his former dissolute life, standing twelve days on one leg, without even tasting water, and with his eyes fixed on the Sun, the regent of which appeared to him in the character of SU'RYE'SWARA, commanding him to declare what he most desired "Grant me *mácbha*, or beatitude," said PUSHPAEK'TU, prostrating himself before the deity, who bade him be patient, assured him that his offences were expiated, and promised to destroy his enemies with intense heat, but ordered him to raise a temple, inscribed to SU'RYE'SWARA, on the very spot where he then stood, and declared that he would efface the sins of all such pilgrims as should visit it with devotion. He also directed his votary, who became, after his restoration, a virtuous and fortunate monarch, to celebrate a yearly festival in honour of SU'RYA, on the seventh lunar day, in the bright half of *Mágba*. We need only add, that *Heliopolis*, in Lower Egypt, though a literal translation of *Sárya-f'bán*, could not be the same place, as it was not on the banks of the *Nile*.

X One of the wildest fictions, ever invented by mythologists, is told in the *Pádma* and the *Bhágavat*, yet we find an *Egyptian* tale very similar to it.

(a) Diod Sic, B 2 c 1.

The wife of CA'sYA, who had been the *guru*, or spiritual guide, of CRISHNA, complained to the incarnate God, that the ocean had swallowed up her children near the plain of *Prabhâs*, or the western coast of *Gujarât*, now called *Gujarat*, and she supplicated him to recover them. CRISHNA hastened to the shore, and being informed by the Sea-god, that SANC'HA'SURA, or PA'NCHAJANYA, had carried away the children of his preceptor, he plunged into the waves, and soon arrived at *Cusba-dwîp*, where he instructed the *Cuttî-cîjas* in the whole system of religious and civil duties, cooled and embellished the peninsula, which he found smoking from the various conflagrations which had happened to it, and placed the government of the country on a secure and permanent basis. He then disappeared, and, having discovered the haunt of SANC'HA'SURA, engaged and slew him, after a long conflict, during which the ocean was violently agitated, and the land overflowed, but, not finding the Brâhmaṇa's children, he tore the monster from his shell, which he carried with him as a memorial of his victory, and used afterwards in battle by way of a trumpet. As he was proceeding to *Varâba-dwîp*, or *Europe*, he was met by VARUNA, the chief God of the Waters, who assured him positively, that the children of CA'sYA were not in his domains. The preserving power then descended to *Yamapuri*, the infernal city, and, founding the shell *Pâncayanya*, struck such terror into YAMA, that he ran forth to make his prostrations, and restored the children, with whom CRISHNA returned to their mother.

Now it is related by PLUTARCH, (a,) that GARMATHONE, queen of *Egypt*, having lost her son, prayed fervently to Isis, on whose intercession OSIRIS descended

(a) On Rivers, art. Nile.

to the shades, and restored the prince to life; in which fable Osiris appears to be CĀSHMĀNA, the dark divinity. *Garmās*, or *Garkās*, was the name of a hilly district, bordering on the land of the *Triglydites*, or *Sanc'bāsuras*, and *Ethiopia* was in former ages called *Egypt*. The flood in that country is mentioned by *CEDRENUS*, and said to have happened fifty years after *CECROPS*, the first king of *Athens*, had begun his reign. *Abyffana* was laid waste by a flood, according to the Chronicle of *Yems*, about 1600 years before the birth of CHRIST, (a,) and *Cecrops*, we are told, began to reign 1657 years before that epoch, but it must be confessed that the chronology of ancient Greece is extremely uncertain.

XI. Having before alluded to the legends of *GUPTA* and *CARDAMA*, we shall here set them down more at large, as they are told in the *Parānas*, entitled *Brab-mānda* and *Scānda*, the second of which contains very valuable matter concerning Egypt and other countries in the west. *SU'KYA* having directed both gods and men to perform sacred rites in honour of *VISHNU*, for the purpose of counteracting the baneful influence of *SANI*, they all followed his directions, except *MĀHA'DEVA*, who thought such homage inconsistent with his exalted character, yet he found it necessary to lie for a time *concealed*, and retired to *Barbara*, in *Sanc'ha-dwīp*, where he remained seven years *hidden in the mud*, which covered the banks of the *Cali*; hence he acquired the title of *GUPTE'SWARA*. The whole world felt the loss of his vivifying power, which would long have been suspended, if *MANDAPA*, the son of *CUSHMĀDA*, had not fled, to avoid the punishment of his vices and crimes, into *Cubha-dwīp*, where he became a sincere penitent, and wholly devoted himself to the worship of *MĀHA'DEVA*, constantly singing his praise, and dancing in

honour of him the people, ignorant of his former dissolute life, took him for a holy man and loaded him with gifts till he became a chief among the votaries of the concealed God, and at length formed a design of restoring him to light. With this view he passed a whole night in *Cardama-f'bim*, chanting hymns to the mighty power of destruction and resavanon, who, pleased with his piety and his snuffick, started from the sea, whence he was named CARDAMÉ-SWARA, and appeared openly on earth, but, having afterwards met SA-MAISCHAKA, who scornfully exulted on his own power in compelling the Lord of three Worlds to conceal himself in a few, he was ashamed by the taunt, and ascended to his palace on the top of *Cailâ*.

GUPTE'SWARA-STHAN, abbreviated into *Gupta*, on the banks of the *Nile*, is the famed town *Coptos*, called *Gupt* or *Gyp* to this day, though the *Arabs*, as usual, have substituted their *kif* for the true initial letter of that ancient word I am even informed, that the land of *Egypt* is distinguished in some of the *Puranas* by the name of *Gupta-f'bim*, and I cannot doubt the information, though the original passages have not yet been produced to me. Near *Gupta* was *Cardama-f'bali*, which I suppose to be *Thebes*, or part of it, and CADMUS, whose birth-place it was, I conceive to be *Iswara*, with the title CARDAMA, who invented the *system of letters*, or at least arranged them as they appear in the *Sanskrit* grammars the *Grecs*; indeed, confounded CARDAMÉ-SWARA with CARDAMA, father of VARUNA, who lived on the western coasts of *Asia*, whence CADMUS is by some called an *Egyptian*, and by others, a *Phenician*; but it must be allowed, that the writers of the *Puranas* also have caused infinite confusion by telling the same story in many different ways; and the two CARDAMAS may, perhaps, be one and the same personage.

1

"**CADMUS** was born, says Diodorus (*a*), at Thebes in Egypt. He had several sons, and a daughter named **Semira**, who became pregnant, and, in the *seventh* month, brought forth an imperfect male child greatly resembling **Osiiris**; whence the Greeks believed, that Osiiris was the son of **CADMUS** "and **SEMIRA**." Now I cannot help believing, that Osiiris of Thebes was **ISWARA** springing, after his concealment for *seven* years, from the mud (*Cardame*) of the river *Syamala*, which is a *Pauranic* name for the *Nile*. whatever might have been the grounds of so strange a legend, it probably gave rise to the popular *Egyptian* belief, that the human race were produced from the mud of that river, since the appearance of **CARDAME'SWARA** revivified nature and replenished the earth with plants and animals.

XII. The next legend is yet stranger, but not more absurd than a story, which we shall find among the *Egyptians*, and which in part resembles it. **Maha'deva** and **Parvati** were playing with dice at the ancient game of *Chaturanga*, when they disputed and parted in wrath, the goddess retiring to the forest of *Gauri*, and the god repairing to *Cishbadip*. They severally performed rigid acts of devotion to the Supreme Being, but the fires, which they kindled, blazed so vehemently as to threaten a general conflagration. The *Divas* in great alarm hastened to **Brahma'**, who led them to **Maha'deva**, and supplicated him to recall his consort, but the wrathful deity only answered, that she must come by her own free choice. They accordingly dispatched **Ganapati**, the river-goddes, who prevailed on **Parvati** to return to him on condition that his love for her should be restored. The celestial mediators then employed **Ca'madeva**, who wounded **Siva** with one of his flowery arrows; but the angry divinity

(a) B. I. C. 13

reduced him to ashes with a flame from his eye. PA'KVATI soon after presented herself before him in the form of a Crāti, or daughter of a mountaineer, and, seeing him enamoured of her, resumed her own shape. In the place where they were reconciled, a grove sprang up, which was named Cāmavana, and the relenting god, in the character of CA'MESWARA, confided the afflicted Rati, the widow of CA'MA, by assuring her, that she should rejoin her husband, when he should be born again in the form of PRADYUMNA, son of KRISHNA, and should put SAMBARA to death. This favourable prediction was in due time accomplished, and PRADYUMNA having sprung to life, he was instantly seized by the demon SAMBARA, who placed him in a chest, which he threw into the ocean; but a large fish, which had swallowed the chest, was caught in a net, and carried to the palace of a tyrant, where the unfortunate Rati had been compelled to do menial service—it was her lot to open the fish, and, seeing an infant in the chest, she nursed him in private, and educated him till he had sufficient strength to destroy the malignant SAMBARA. He had before considered Rati as his mother, but, the minds of them both being irradiated, the prophecy of MAHA'DEVA was remembered, and the god of Love was again united with the goddess of Pleasure. One of his names was PUSH-PADHANVA, or *with a flowing bow*; and he had a son VISVADHANVA, from whom VIJAYADHANVA and CIRTIDHANVA locally sprang, but the two last, with whom the race ended, were surnamed CAUN'APA, for a reason which shall presently be disclosed.

VISVADHANVA, with his youthful companions, was hunting on the skirts of HIMALAYA, where he saw a white elephant of an amazing size with four tusks, who was disporting himself with his females—the prince imagined him to be AIRAVATA, the great elephant of INDRA, and ordered a circle to be formed round him, but

the noble beast broke through the task, and the hunters pursued him from country to country, till they came to the burning sands of Barkera, where his course was so much impeded, that he assumed his true shape of a *Réchaga*, and began to bellow with the sound of a large drum, called *danda*, from which he had acquired the name of DUNDUBHI. The son of Cama, instead of being dismayed, attacked the giant, and, after an obstinate combat, slew him; but was astonished on seeing a beautiful young wife from the bleeding body, with the countenance and form of a *Gandharva*, or celestial quarter; who told him, before he vanquished, that " he had been expelled for a time from the heavenly mansions, and, as a punishment for a great offence, had been condemned to pass through a mortal state in the shape of a giant, with a power to take other forms, that his crime was expiated by death, but that the prince deserved, and would receive, chastisement, for molesting an elephant, who was enjoying transcendent pleasures " The place, where the white elephant resumed the shape of a *Réchaga*, was called *Réchaga-s'bhā*; and that, where he was killed, *Dandubhi-māra-s'bhā*, or *Réchaga-māravāna*, because he there acquired *mārība*, or a release from his mortal body. It is declared in the *Uttara-charitra*, that a pilgrimage to those places, with the performance of certain holy rites, will ever secure the pilgrim from the dread of giants and evil spirits.

CANTACA, the younger brother of DUNDUBHI, meditated vengeance, and assuming the character of a Brāhmaṇa, procured an introduction to VISVADHANVA as a person eminently skilled in the art of cookery: he was accordingly appointed chief cook, and, a number of Brāhmaṇas having been invited to a solemn entertainment, he strewed a *ekṣapa* or *vr̥g*, (some say *putrid fish*.) and gave it in soup to the guests, who, discovering the abominable affront,

affront, were enraged at the king, telling him, that he should live twelve years as a night-wanderer feeding on caypas, and that *Cayapa* should be the surname of his descendants: some add, that, as soon as this curse was pronounced, the body of *VISVADHARWA* became festering and ulcerous, and that his children inherited the loathsome disease.

We find clear traces of this wild story in Egypt; which from CA'MA was formerly named *Chemis*, and it is to this day known by the name of *Chemis* to the few old Egyptian families, that remain. It has been conjectured, that the more modern Greeks formed the word *Chemis* from this name of *Egypt*, whence they derived their first knowledge of *Chemistry*. The god CA'MA was the same, according to PLUTARCH, with OROT the Elder, or one of the ancient APOLOOS, but he is described as very young and beautiful, and his consort was named RHYTTA, so that he bears a strong resemblance to CA'MA, the husband of RITA, or the CUPID of the *Hindus*: there were two gods named CUPID, says AELIAN (a), the elder of whom was the son of LUCINA, and the lover, if not the husband, of VENUS: the younger was her son. Now SMU or TYPHON, says HERODOTUS, wished to destroy ORUS, whom LATONA concealed in a grove of the island *Chemiss*, in a lake near *Batus*, but SMU, or SAMBAR, found means to kill him, and left him in the waters, where ISIS found him and restored him to life (b). AELIAN says, that the Sun, a form of OSIRIS, being displeased with CUPID, threw him into the ocean, and gave him a shell for his abode. SMU, we are told, was at length defeated and killed by ORUS. We have said, that CA'MA was born again in this lower world, or became *Abhijan*, not as a punishment for his offence, which that word commonly implies, but as a mis-

(a) B. 14. C 28

(b) Diod Sic B 14

gation of the chastisement, which he had received from ISWARA, and as a favour conferred on him in becoming a son of VIJNNU this may, therefore, be the origin both of the name and the story of ADONIS; and the yearly lamentations of the *Syrian* damsels may have taken rise from the ditties chanted by RETI, together with the *Apsaroes*, or nymphs, who had attended CA'MA, when he provoked the wrath of MABA'DEVA one of the sweetest measures in *Sanskrit* prosody has the name of *RETI vilipa*, or the *dirge* of RETI.

In the only remaining accounts of *Egyptian* Mythology, we find three kings of that country, named CAMEPHIS, which means in *Coptick*, according to JABLONSKI, the guardian divinity of *Egypt* (*a*) the history of those kings is very obscure, and whether they have any relation to the three descendants of CA'MA, I cannot pretend to determine. The *Canopas* appear to be the *Nines*, *ψιθοι* supposed to have reigned in *Egypt*, for we learn from SYNERCLUS (*b*), that the *Egyptians* had a strange tale concerning a dynasty of *dead men*; that is, according to the *Hindus*, of men afflicted with some sphacelous disorder, and, most probably, with *Elephantiasis*. The seat of CUNAPA seems to have been *Canobus*, or *Canopus*, not far from *Alexandria*: that *Canopus* died there of a loathsome disease was asserted by the *Greek* Mythologists, according to the writer of the *Great Etymological Dictionary* under the word '*Ελάσσος*', and he is generally represented in a black shroud with a cap closely fitted to his head, as if his dress was intended to conceal some offensive malady, whence the potters of *Canopus* often made pitchers with covers in the form of a close cap. His tomb was to be seen at *Helenium*, near the town which bore his name; but that of his wife (who, according to EPIPHANIUS, was named *Eumenuthis*) was in a place called *Menibus*, at the distance of two stadia. There were two

(*a*) See *Alphab. Tibet.* p. 145

(*b*) P. 40, cited by Mr. BAYANT

temples at *Compsus*; the more ancient inscribed to HERCULES, which stood in the suburbs (*a*), and the more modern, but of greater celebrity, raised in honour of SERAPIS (*b*). Now there seems to be no small affinity between the characters of DUNDHU and ANTÆUS, of VISVADHANWA and HERCULES, many heroes of antiquity (CICERO reckons up six, and others forty-*ibres*, some of whom were peculiar to *Egypt*) had the title of HERCULES; and the Greeks, after their fashion, ascribed to one the mighty achievements of them all ANTÆUS was, like DUNDHU, a favourite servant of Osiris, who intrusted part of *Egypt* to his government, but, having in some respect misbehaved, he was deposed, absconded, and was hunted by HERCULES through every corner of Africa. hence I conclude, that *Dandhu-mara-śībān* was the town, called *Antæu* by the Egyptians, and *Antæopolis* by the Greeks, where a temple was raised and sacrifices made to ANTÆUS, in hopes of obtaining protection against other demons and ghosts. *Rāshasa-śībān* seems to be the *Rbacotis* of the Greeks, which CEDRENUS calls in the oblique case *Rhabatiss* it stood on the site of the present *Alexandria*, and must in former ages have been a place of considerable note, for PLINY tells us, that an old king of *Egypt*, named MESPHRES, had erected two obelisks in it, and that some older kings of that country had built forts there, with garrisons in them, against the pirates who infested the coast (*c*). When HERCULES had put on the fatal robe, he was afflicted, like VISVADHANWA, with a loathsome and excruciating disease, through the vengeance of the dying Neasus. others relate (for the same fable is often differently told by the Greeks) that HERCULES was covered with gangrenous ulcers from the venom of the *Lernæan* serpent, and was cured in *Pbennæ* at a place called *Ake* (the *Acea* of Scripture) by the juice of a plant, which abounds

(*a*) Herod. B 2.(*b*) Strabo, B 17(*c*) Lib 36 Cap 9

both in that spot and on the *backs* of the Nile (*a*) The Greeks, who certainly migrated from Egypt, carried with them the old Egyptian and Indian legends, and endeavoured (not always, with success) to appropriate a foreign system to their new settlements. all their heroes or demigods, named HERACLES by them, and Hercules by the Latins (if not by the *Ethians*), were sons of JUPITER, who is represented in India both by HERA, or SIVA, and by HERI or VISHNU; nor can I help suspecting, that Hercules is the same with HERACULA, commonly pronounced *Hercul*, and signifying the *race* of HERI or HER. Those heroes are celebrated in the concluding book of the *Mahâbhârata*, entitled *Hervayâs*; and ARRIAN says, that the *Surasas*, or people of *Mar'hara*, worshipped HERCULES, by whom he must have meant CARSHNA and his descendants.

In the *Canaepean* temple of SERAPIS, the statue of the god was decorated with a *Cerberus* and a Dragon; whence the learned *Alexandrians* concluded, that he was the same with PLUTO his image had been brought from *Snope* by the command of one of the *Ptolemies*, before whose time he was hardly known in Egypt SERAPIS, I believe, is the same with YAMA or PLUTO, and his name seems derived from the compound *Ayropa*, implying *shrub* of blood the sun in *Bhâdra* had the title of YAMA, but the *Egyptians* gave that of PLUTO, says PORPHYRY, to the great luminary near the winter solstice (*b*) Yama, the regent of hell, has two dogs, according to the *Paranas*, one of them, named CARBURA and SABALA, or *varied*, the other SYA'MA, or *black*; the first of whom is also called *Tritras*, or *with three heads*, and has the additional epithets of *Calmâba*, *Chura*, and *Girmira*, all signifying *streaked*, or *spotted*. In PLINY, the

(a) Steph. Byzant. under *Akr*

(b) Cited by Eich.

words *Cimenterium* and *Carberus* seem used as synonymous (*a*) ; but, however that may be, the *CIMBURA* of the *Hindus* is indubitably the *CERBERUS* of the Greeks. The Dragon of *Strapis* I suppose to be the *Sébanága*, which is described as in the infernal regions by the author of the *Bhágavat*.

Having now closed my remarks on the parallel divinities of *Egypt* and *India*, with references to the ancient geography of the countries adjacent to the *Nile*, I cannot end this section more properly than with an account of the *Jainas* and the three principal deities of that sect, but the subject is dark, because the *Bráhmens*, who abhor the followers of *JINA*, either know little of them, or are unwilling to make them the subject of conversation what they have deigned to communicate, I now offer to the society

Toward the middle of the period, named *Padmatalpa*, there was such a want of rain for many successive years, that the greatest part of mankind perished, and BRAHMA himself was grieved by the distress, which prevailed in the universe. RUPUNJAYA then reigned in the west of *Cufsa-dwip*, and, seeing his kingdom desolate, came to end his days at CÁS. Here we may remark, that CÁS, or *the Splendid*, (a name retained by PTOLEMY in the word *Cassida*) is called *Bandras* by the *Moguls*, who have transposed two of the letters in its ancient epithet *Várásási*, a name, in some degree preserved also by the Greeks in the word *Aornis* on the *Ganges*; for, when old CÁS, or *Cassida*, was destroyed by BHAGAWAN, according to the *Purána*s, or by BACCHUS, according to DIONYSIUS PERIEGETES, it was rebuilt at some distance from its former site, near a place called *Sivabar*, and had the name of *Várásási*, or *Aornis*, which we

(a) Lib. 6. C 6

find also written *Avernas*. The word *Várdnás* may be taken, as some *Brahmanas* have conjectured, from the names of two rivulets, *Váruna* and *Ási*, between which the town stands; but more learned grammarians deduce it from *vára*, or *most excellent*, and *anás*, or *water*, whence come *Várdnás*, an epithet of *Gangá*, and *Várdnás* (formed by PA'NINI's rule) of the city raised on her bank. To proceed BRAHMA offered RUPUNJAYA the dominion of the whole earth, with *Cási* for his metropolis, directing him to collect the scattered remains of the human race, and to aid them in forming new settlements, telling him, that his name should thenceforth be DIVODAS, or *Servant of Heaven*. The wise prince was unwilling to accept so burdensome an office, and proposed as the condition of his acceptance, that the glory, which he was to acquire, should be exclusively his own, and that no Dévala should remain in his capital. BRAHMA, not without reluctance, assented, and even MAHA'DEVA, with his attendants, left their favourite abode at *Cási* and retired to the *Mandara* hills near the source of the *Ganges*. The reign of DIVODAS began with acts of power, which alarmed the gods, he deposed the Sun and Moon from their seats, and appointed other regents of them, making also a new sort of fire but the inhabitants of *Cási* were happy under his virtuous government. The deities, however, were jealous, and MAHA'DEVA, impatient to revisit his beloved city, prevailed on them to assume different shapes, in order to seduce the king and his people. DRÍVI tempted them, without success, in the forms of sixty-four *Yóginis*, or female anachorites the twelve *Adityas*, or Súns, undertook to corrupt them, but, ashamed of their failure, remained in the holy town: next appeared GANE'SA, commissioned by his father MAHA'DEVA, in the garb of an astronomer, attended by others of his profession, and assisted by thirty-six *Vamáyacus*, or *Gáñis*, who were his female descendants, and by their help he began to change the

the disposition of the people, and to prepare them for the coming of the three principal deities

VISHNU came in the character of JINA, inveighing against sacrifices, prayers, pilgrimage, and the ceremonies prescribed by the *Veda*, and asserting, that all true religion consisted in killing no creature that had life his consort JAYA'DEVI preached this new doctrine to her own sex, and the inhabitants of Cāsi were perplexed with doubts. He was followed by MAHA'DEVA, in the form of ARHAN or MAKIMAN, accompanied by his wife MAHA'MĀNYA, with a multitude of male and female attendants he supported the tenets of JINA, alledging his own superiority over BRAHMA' and VISHNU, and referring, for the truth of his allegation, to JINA himself, who fell prostrate before him; and they travelled together over the world, endeavouring to spread their heresies At length appeared BRAHMA' in the figure of BUDDHA, whose consort was named VIJÑY'A he confirmed the principles inculcated by his predecessors, and, finding the people seduced, he began, in the capacity of a Brāhman, to corrupt the mind of the king Divo'dāSA listened to him with complacency, lost his dominion, and gave way to MAHA'DEVA, who returned to his former place of residence, but the deposed king, reflecting too late on his weakness, retired to the banks of the Gomati, where he built a fortress, and began to build a city on the same plan with Cāsi? the ruins of both are still to be seen near Chancor about fourteen miles above the confluence of the Gomti with the Ganges and about twenty to the north of Benares It is added, that MAHA'DEV'A, having vainly contended with the numerous and obstinate followers of the new doctrine, resolved to exterminate them; and, for that purpose, took the shape of SANCARA, surnamed Akshaya, who explained the *Vedas* to the people, destroyed the temples of the Yamas, caused their books to be burned, and massacred all, who opposed him

This tale, which has been extracted from a book, entitled *Sancara-prâshnabha*, was manifestly invented, for the purpose of aggrandizing SANCARA'CHA'RVA, whose exposition of the *Upanishads* and comment on the *Vedânta*, with other excellent works, in prose and verse, on the being and attributes of GOD, are still extant and sedulously studied by the *Védânta* school: his disciples considered him as an incarnation of MAHA'DEVA; but he tarnished his brilliant character by fomenting the religious war, in which most of the persecuted *Yesses* were slain or expelled from these parts of *India*; very few of them now remaining in the *Gangâck* provinces or in the western peninsula, and those few living in penury and ignorance, apparently very wretched, and extremely reserved on all subjects of religion. These heterodox *Indians* are divided into three sects: the followers of JINA we find chiefly dispersed on the borders of *India*; those of BUDDHA, in *Tibet*, and other vast regions to the north and east of it; while those of ARHAN (who are said to have been anciently the most powerful of the three) now reside principally in *Siam* and in other kingdoms of the eastern peninsula. ARHAN is reported to have left impressions of his feet on rocks in very remote countries, as monuments of his very extensive travels: the most remarkable of them is in the island of *Simbal*, or *Silan*, and the *Siamis* revere it under the name of *Prapût*, from the *Sanskrit* word *Prapûda*, but the *Brahmans* insist, that it was made by the foot of RA'VANA. Another impression of a foot, about two cubits long, was to be seen, in the time of HERODOTUS, on the banks of the river *Tyras*, now called the *Dnieper*: the people of that country were certainly *Bauddas*, and their high priest, who resided on mount *Cocazon*, at present named *Cayon*, was believed to be regenerate, exactly like the *Lama* of *Tibet*.

As to JINA, he is said by his followers to have assumed twenty-four *râpas*,
or

or forms, at the same time, for the purpose of disseminating his doctrine, but to have existed really and wholly in all and each of those forms at once, though in places very remote; but those *rūpas* were of different orders, according to certain mysterious divisions of twenty-four, and the *forms* are considered as more or less perfect according to the greater or less perfection of the component numbers and the several compounds, the leading number being *three*, as an emblem of the *Trinity*; again the twenty-four *rūpas*, multiplied by those numbers, which before were used as divisors, produce other *forms*; and thus they exhibit the appearances of JINA in all possible varieties and permutations, comprising in them the different productions of nature.

Most of the Brāhmaṇas insist, that the BUDDHA, who perverted Divópāśa, was not the ninth incarnation of VISHNU, whose name, some say, should be written BAUDDHA or BODDHA, but not to mention the *Armatōś*, the *Mugdhabhīb*, and the *Gītagovinda*, in all of which the ninth *avatār* is called BUDDHA, it is expressly declared in the *Bhāgavat*, that VISHNU should appear *mainly* in the form of "BUDDHA, son of JINA, for the purpose of confounding the *Dāityas*, "at a place named *Cicata*, when the *Cala* age should be completely begun" on this passage it is only remarked by SKIDHARA SWĀMī, the celebrated commentator, that JINA and AJINA were two names of the same person, and that *Cicata* was in the district of *Gaya*, but the *Pandīs*, who assisted in the Persian translation of the *Bhāgavat*, gave the following account of the ninth *avatāra*. The *Dāityas* had asked INDRA, by what means they could attain the dominion of the world, and he had answered, that they could only attain it by sacrifice, purification, and piety they made preparations accordingly for a solemn sacrifice and a general ablution, but VISHNU, on the intercession of the Dévas, descended

descended in the shape of *Samyas*, named BUDDHA, with his hair braided in a knot on the crown of his head, wrapt in a *Shawl* mantle and with a broom in his hand BUDDHA presented himself to the *Dasyas*, and was kindly received by them, but, when they expressed their surprise at his foul vesture and the singular implement which he carried, he told them, that *it was cruel, and consequently impious, to deprive any creature of life*, that, whatever might be said in the *Vedas*, every sacrifice of an animal was an abomination, and that *purification* itself was wicked, because some small insect might be killed in bathing or washing cloth, that he never bathed, and constantly swept the ground before him, lest he should tread on some innocent reptile he then expatiated on the inhumanity of giving pain to the playful and harmless kid, and reasoned with such eloquence, that the *Dasyas* wept, and abandoned all thought of ablution and sacrifice As thus *Miyā*, or *illustre apperance*, of VISHNU frustrated the ambitious project of the *Dasyas*, one of BUDDHA's titles is the son of *Ma'ya* he is also named *Sacysinha*, or the *Lion* of the race of *Sacya*, from whom he descended, an appellation, which seems to intimate, that he was a conqueror or a warrior, as well as a philosopher Whether BUDDHA was a sage or a hero, the leader of a colony, or a whole colony personified, whether he was black or fair, whether his hair was curled or straight, if indeed he had any hair (which a commentator on the *Bhagwata* denies), whether he appeared ten, or two hundred, or a thousand, years after CRISHNA, it is very certain, that he was not of the true *Indian* race in all his images, and in the statues of *Baudhas*, male and female, which are to be seen in many parts of these provinces and in both peninsulas, there is an appearance of something *Egyptian* or *Ethiopian*, and both in features and dress, they differ widely from the ancient *Hinda* figures of heroes and demigods. *Sacya* has

has a resemblance in sound to Sisac, and we find CHAWAC abbreviated from CHAWACAYA, so that Sisac and SESONCHOSIS may be corrupted from SA'CYASINHA, with a transposition of some letters, which we know to be frequent in proper names, as in the word *Banâres*. Many of his statues in India are Colossal, nearly naked, and usually represented sitting in a contemplative attitude, nor am I disinclined to believe, that the famed statue of Memnon in Egypt was erected in honour of MAHIMAN, which has MAHIMXA in one of its oblique cases, and the Greeks could hardly have pronounced that word otherwise than MAIMNA or MEMNA they certainly used *Mas* instead of *Maha*, for Herzenius expressly says, *Mai*, μεγάς 'Iddî'; and *Mas* signifies great even in modern Coptic. We are told, that MAHIMAN, by his wife MAHAMATYA, had a son named SAMANA CARDAMA, who seems to be the SAMMANO CODOM of the *Buddhas*, unless those last words be corrupted from SAMANEA GÖTAM, which are found in the *Amarâshî* among BUDDHA's names. CARDAM, which properly means clay or mud, was the first created man according to some Indian legends, but the Purânas mention about seven or eight, who claimed the priority of creation; and some Hindus, desirous of reconciling the contradiction, but unwilling to admit that the same fact is differently related, and the same person differently named, insist that each was the first man in his respective country. Be this as it may, CARDAMA lived in *Varuna-c'banda*, so called from his son VARUNA the god of ocean, where we see the ground-work of the fable concerning PALÆMON, or MELICERTUS, grandson of CADMUS now that *c'banda*, or division of *Jambu-dwîp* comprised the modern *Perſia*, *Syria*, and *Asia* the Less, in which countries we find many traces of MAHIMAN and his followers in the stupendous edifices, remarkable for their magnificence and solidity, which the Greeks ascribed to the *Cyclopes*. The walls of *Susa*, about sixteen miles in circumference,

were

were built by the father of *Memnon*, the citadel was called *Memnonium*, and the town, *Mennona*, the palace is represented by *Aelian* as amazingly sumptuous, and *Strabo* compares its ancient walls, citadel, temples, and palace to those of *Babylon*, a noble high road through the country was attributed to *Memnon*, one tomb near *Troy* was supposed to be his, and another in *Syria*, the *Ethiopians*, according to *Diodorus of Sicily*, claimed *Memnon* as their countryman, and a nation in *Ethiopia* were styled *Mennones*, on the borders of that country and of *Egypt* stood many old palaces, called *Mennonian*; part of *Thebes* had the name of *Memnonian*, and an astonishing building at *Abydos* was denominated *Memnon's* palace. *Strabo* says, that many supposed *Ismandes* to have been the same with *Memnon*, and consequently they must have thought the *Labyrinth* a *Mennonian* structure (a)

Diodora'sa, pronounced in the popular dialects *Dioda's*, reigned over some western districts of *Cufra-dvip uskm*, which extended from the shores of the *Mediterranean* to the banks of the *Indus*, and he became, we find, the first mortal king of *Varanes* he seems to have been the *Hercules Diodas* mentioned by *Eusebius*, who flourished in *Ptolemy*, and, it is supposed, about 1524 years before our era, but, in my humble opinion, we cannot place any reliance on such chronological calculations, which always err on the side of antiquity. The three sects of *JINA*, *MARIMAN*, and *BUDDHA*, whatever may be the difference between them, are all named *BAUDDHAS*, and, as the chief law, in which, as the *Bráhmens* assert, they make virtue and religion consist, is to preserve the lives of all animated beings, we cannot but suppose, that the

(a) *Herod* V 54 *Ael* XIII 18 *Diod* III 69 *Strab* XV p 728 XVII p 823

founder of their sect was BUDDHA, the ninth *avatâr*, who in the *Agmipurân*, has the epithet of *Sacîpa*, of Benevolent, and, in the *Gîtâgîvanda*, that of *Sadeya-brîdaya*, or Tender-hearted. It is added by JAYADEVA, that "he censured the "whole *Veda*, because it prescribed the immolation of cattle." Thus alone, we see, has not destroyed their veneration for him, but they contend that atheistical dogmas have been propagated by modern *Bauddhas*, who were either his disciples, or those of a younger BUDDHA, or so named from *buddhi*, because they admit no supreme divinity, but intellect, they add, that even the old *Jamas*, or *Jayanâs*, acknowledged no gods but *SVA*, or Earth, and *VISHNU*, or Water, as DERI-ADES (perhaps DURYO'DHAN) is introduced by NONNUS boasting, that Water and Earth were his only deities, and reviling his adversaries, for entertaining a different opinion (a), so that the Indian war, described in the *Dionysiacs*, arose probably from a religious quarrel. Either the old *Bauddhas* were the same with the *Cuttla-câjas*, or nearly allied to them, and we may suspect some affinity between them and the *Pâks*, because the sacred language of Siam, in which the laws of the *Bauddhas* are composed, is properly named *Pâk*, but a complete account of BUDDHA will then only be given, when some studious man shall collect all that relates to him in the *Sanskrit* books, particularly in the *Vâyu-purân*, and shall compare his authorities with the testimonies, drawn from other sources by KÆMPFER, GIORGI, TACHARD, DE LA LOUBERE, and by such as have access to the literature of China, Siam, and Japan.

(a) Dionysiac B 21 v 247, &c 259, &c.

SECTION THE THIRD.

WE come now to the demigods, heroes, and sages, who at different times visited *Egypt* and *Ethiopia*, some as vindictive conquerors, and some as instructors in religion and morality.

I PE'T'HINA'S, OR PI'T'HE'NA'S was a *Rishi*, or holy man, who had long resided near Mount *Himálaya*, but at length retired to the places of pilgrimage on the banks of the *Cáñ*, desiring to end his days there in the discharge of his religious duties his virtues were so transcendent, that the inhabitants of the countries bordering on that river, insisted on his becoming their sovereign, and his descendants reigned over them to the *thirteenth* generation, but his immediate successor was only his adopted son The following series of fifteen kings may constitute, perhaps, the dynasty, which, in the history of *Egypt*, is called the *Cynick Circle*

PE'T'HINA'S

Páit'hínasi,	Cvítíménás,
<i>I</i> sbénás,	10 <i>Carmaryénás,</i>
<i>T</i> asbénás,	<i>P</i> it'bín,
5 <i>C</i> asbénás,	<i>P</i> ár'kíns,
<i>J</i> ubbénás,	<i>P</i> élyamúca,
<i>P</i> ubbénás,	<i>P</i> é't'hí-s'uca,
<i>S</i> ubbénás,	15 <i>M</i> é'd'hí-s'uca

Each of those princes is believed to have built a place of worship, near which he usually resided, but of the fifteen temples, or consecrated edifices, we can only ascertain the situation of seven with any degree of accuracy

The

The founder of the family was a pious and excellent prince, observing in all respects the ordinances of the *Veda*—his name is to this day highly venerated by the *Brahmins*, many sacerdotal families in *India* boast of their descent from him, and the laws of PAIT'ĀNĀST are still extant, in an ancient style and in modulated prose, among the many tracts, which collectively form the *Dharma-Sāstra*. It must be observed, that he was often called PIT'HE'KISHI, or PIT'HERSHI, and has place of residence, *Pit'bá-ríjbi-st'bán*, but the short vowel *rī* has the sound of *rū* in the western pronunciation, like the first syllable of *Richard* in some *English* counties—thus, in parts of *India*, *amrita*, or *ambrosia*, is pronounced *amrīt*, whence I conjecture, that the seat of *Pit'bá-rūshī* was the *Paibros* of Scripture, called *Phatres* by the Seventy, and *Pbatori* by Eusebius, which gave its appellation to the *Pbaturistic* nome of *PLINY*. Some imagine *Pbaturis* to have been *Thebes* or *Diospolis*, but *PLINY* mentions them both as distinct places, though, from his context, it appears that they could not be far asunder; and I suppose *Pbaturis* to be no other than the *Tatbyris* of *PTOLEMY*, which he places at no great distance from the *Mennonium*, or western suburb of *Thebes*, and, in the time of *PTOLEMY*, the nome of *Pbaturis* had been annexed to that of *Diospolis*, so that its capital city became of little importance—we took notice, in the first section, that the *Etiopians*, who, from a defect in their articulation, say *TACLOS* instead of *PAULOS*, would have pronounced *Tibees* for *Pitboes*, and *Tatburis* for *Paiburis*.

Though we before gave some account of the fabulous RA'HU and the *Grabas*, yet it may not be superfluous to relate their story in this place at greater length. RA'HU was the son of CASIAPA and DITI, according to some authorities—but others represent SINHIEA' (perhaps, the *Sphinx*) as his natural mother—he had four arms, his lower parts ended in a tail like that of a dragon, and his

aspect was grim and gloomy, like the *darkness* of the chaos, whence he had also the name of *TAMAS*. He was the adviser of all mischief among the *Dasyas*, who had a regard for him, but among the *Dévarás* it was his chief delight to sow dissension, and, when the gods had produced the *smriti* by churning the ocean, he disguised himself like one of them, and received a portion of it, but, the Sun and Moon having discovered his fraud, *Vishnu* severed his head and two of his arms from the rest of his monstrous body. That part of the nectareous fluid, which he had time to swallow, secured his immortality. His trunk and dragon-like tail fell on the mountain of *Malaya*, where *MINI*, a *Bráhmaṇ*, carefully preserved them by the name of *C'ru*, and, as if a complete body had been formed from them, like a dismembered polype, he is even said to have adopted *C'ru* as his own child. The head with two arms fell on the sands of *BARBARA*, where *PIT'HE'NA'S* was then walking with *SINHICA'*, by some called his wife; they carried the *Dasyas* to their palace, and adopted him as their son, whence he acquired the name of *PAT'HE'NASI*. This extravagant fable is, no doubt, astronomical, *RA'HU* and *C'ru* being clearly the *nodes*, or what astrologers call the *head* and *tail* of the dragon. It is added, that they appeased *VISHNU* and obtained re-admission to the firmament, but were no longer visible from the earth, their enlightened sides being turned from it; that *RA'HU* strives, during eclipses, to wreak vengeance on the Sun and Moon, who detected him, and that *C'ru* often appears as a comet, a whirlwind, a fiery meteor, a water-spout, or a column of sand. From *PARTH'NA'S* the Greeks appear to have made *Pythones* in their oblique case; but they seem to have confounded the stories of *PYTHON* and *TYRPHON*, uniting two distinct persons in one (*a*). *PAT'HE'NASI*, who reigned on the banks of the *Ganges* after *PIT'HE'NA'S* his

(a) *Plut. His and Osiris*

protector,

protector, I suppose to be TYPHON, TYPHAON, or TYPHOEUS he was an usurper and a tyrant, oppressing the Dívás, encouraging the Daityas, and suffering the *Védes* to be neglected HERODOTUS represents him, like RA'HU, as constantly endeavouring to destroy APOLLO and DIANA (*a*), and the Mythologists add, that he was thunderstruck by JUPITER, and fell into the quick-fangs of the lake *Sirbonis*, called also *Sirbon* and *Sarboneis* now *Swarbhánu*, one of his names, signifies *Lights of Heaven*, and, in that character, he answers to LUCIFER. The fall of that rebellious angel is described by ISAIAH, who introduces him saying, that "he would exalt his throne above the stars of God, " would sit on the mount of the congregation in the sides of the North " the heavenly Mérū of the Purána, where the principal Dévas are supposed to be seated, is not only in the North, but has also the name of *Sabbá*, or the *congregation*. Fifty-six comets are said, in the *Chintámaṇi*, to have sprung from CE'TU, and RA'HU had a numerous progeny of *Grábas*, or crocodiles we are told by ÆLIAN, that TYPHON assumed the form of a crocodile (*b*), and RA'HU was often represented in the shape of that animal, though he is generally described as a dragon The constellation of the dragon is by the Japanese called the *Crocodile*, and the sixth year of the *Tartarian* cycle has the same appellation it is the very year, which the *Tibetans* name the year of Lightning, alluding to the dragon, who was stricken by it (*c*) A real tyrant of Egypt was, probably, supposed to be RA'HU, or TYPHON, in a human shape, for we find, that he was actually expelled from that country together with his *Grábas* I have not yet been able to procure a particular account of their expulsion The *Abáñ* of RA'HU, or PAITHI'NASI, named also PAIT'HI, seems to have been the town of *Pithom* on the borders of Egypt the Seventy

(*a*) B 2 C 156(*b*) On Animals, B 10 C 21(*c*) Alphab Tibet p 463

wrote it *Petabo*, and HERODOTUS calls it *Patumos*, but, the second case in Sanscrit being generally affected in the western dialects, we find it written *Phabom* by the old Latin interpreter, *Fibom* by HIERONYMUS, and *Pethom* in the Coptic translation. The Greek name of that city was *Hieroopolis*, or according to STRABO, *Heroea*, but we are informed by STEPHANUS of *Byzantium* (a), that, "when TYPHON was smitten by lightning, and blood (*aipa*) flowed from his wounds, the place, where he fell, was thence called *Hamus*, though it had likewise the name of *Hera*" so the station of RA'HU was on the spot, where PR'T'HE'NA's and SINCHICK' found his bloody head rolling on the sands, and, if *Singbicá*, or the *Woman like a Lioness*, be the *Sphinx*, the monstrous head, which the *Arabs* call *Abulbawl*, or *Father of Terroir*, may have been intended for that of RA'HU, and not, as it is commonly believed, for his mother. Though the people of *Egypt* abhorred TYPHON, yet fear made them worship him, and in early times they offered him human victims. The Greeks say, that he had a red complexion, and mention his expulsion from *Egypt*, but add a strange story of his arrival in *Palestine*, and of his three sons. We must not, however, confound RA'HU with MAHA'DE'VA', who, in his destructive character, was called also TYPHON, though it be difficult sometimes to distinguish them several places in *Egypt* were dedicated to a divinity named TYPHON, as the Tybaonian places between Tentyra and Crotos, and the tower of Melite, where daily sacrifices were made to a dragon so terrible, that no mortal durst look on him, the legends of the temple relating, that a man, who had once the temerity to enter the recesses of it, was so terrified by the sight of the monster, that he soon expired (b). Melite, I presume, was in that part

(a) Under the word *Hgō*

(b) *Aelian* on Animals, B 11 C 17

of the *Delta*, which had been peopled by a colony from *Miletus*; and was, probably, the *Mighan* wall or fort near the sea-shore, mentioned by STRABO.

The usurper was succeeded by *Isthe'na's*, the real son of *Pit'he'na's*, who had also a daughter named *Pait'he'nī*; and her story is related thus in the *Brahmānda purāṇa*. From her earliest youth she was distinguished for piety, especially towards *Maha'de'va*, on whom her heart was ever intent; and, at the great festival, when all the nation resorted to *Cardamap'balī*, or *Thebes*, the princess never failed to sing and dance before the image of *CARDAMAY'SWARA*—the goddess *Iswarī* was so pleased with her behaviour, that she made *Paithe'nī* her *Sac'bī*, or female companion, and the damsel used to dance thrice a day in the *mud* before the gate of the temple, but with such lightness and address as never to soil her mantle. She died a virgin, having devoted her life to the service of the god and his consort. The female patronymick *Pait'he'ni* comes from *Pit'h'* or *Pit'he'na*, but from *Pit'he'na's* the derivative form would be *Paithe'na'sī*, and thence Nonnus calls her *PEITHIANASSA*, and describes her as a handmaid of *SEMELI*, the daughter of *CADMUS*, in which character she received *JUNO* (*a*), who was devising the rian of *SE male*, and with that intent had assumed the form of a loquacious nurse. This passage in the *Dionysiaca* is very interesting, as it proves, in my opinion, that the *SE male* and *CADMUS* of the Greeks were the same with the *Sya'mala'* and *CARDAMA* of the *Hindus*.

The fourteenth prince of this dynasty was devoted from his infancy to the worship of *I'swara*, on whom his mind was perpetually fixed, so that he became

insensible of all worldly affections, and indifferent both to the pride and censure of men he used, therefore, to wander over the country, sometimes dwelling on hills and in woods, sometimes in a bower, rarely in a house, and appearing like an idiot in the eyes of the vulgar, who, in ridicule of his idle talk and behaviour, called him *Pēt̄isūca*, *Panyā-sūca*, or *Sūca-sūca*, meaning the *parrot in a cage*, a *cage*, or a *bough*, which names he always retained. When he grew up, and sat on the throne, he governed his people equitably and wisely, restraining the vicious by his just severity, and instructing the ignorant in morals and religion by his wife *Ma'risma'* he had a son called *Me'n̄hi-Sūca*, to whom at length he resigned his kingdom, and, by the favour of *Iswara*, became *jivamūḍa* or *released*, even during life, from all encumbrances of matter, but the story of *Ma'risma'* and his son has been related in a preceding section. *Mēd̄bi*, or *Mēr̄bi*, means a pillar, or a post to which victims are tied, or any straight pole perpendicularly fixed in the ground, and *Pattyam*, I believe, signifies a crois stick, or a wooden bar placed horizontally, so that *Pattyam-sūca* might have meant the *parrot on a perch*, but why the thirteenth prince had that appellation, I am not yet informed. *Sūca* is also a proper name, the son of *Vya'sa*, and principal speaker in the *Bhāgavat*, being called *Sūca dī'va*. Now many obelisks in Egypt were said to have been raised by a king named *Suchis* (*a*), and the famous labyrinth, to have been constructed by king *Petesuctus* (*b*) by *Mērb* we may certainly understand either a pillar or an obelisk, or a slender and lofty tower like the *Mendraks* of the *Myfehnans*, or even a high building in a pyramidal form. The Hindus assert, that each of the three *Sūcas* had a particular edifice ascribed to him; and we can hardly doubt, that the *śikhā* of *Pe'thi-sūca* was the La-

(*a*) Pla L 36 C 8

(*b*) Pla L 36 C 13

byrrnath if the three names of that prince have any allusion to the building, we may apply *Sâkâ*, or mansion, to the whole of it; *Panjara*, or cage, to the lower story, and *Pit'bu*, or chest, to the various apartments under ground, where the chests, or coffins, of the sacred crocodiles, called *Sukbas* or *Sukbis* in old *Egyptian* (a), and *Soubk* to this day in Coptick, were carefully deposited. *Hesychius*, indeed, says, that *Bun* signified a chest, or coffin, in *Egyptian*; but that, perhaps, must be understood of the vulgar dialect the modern *Copts* call a chest *bi-us*, or, with their article, *tatûs*, a word which the *Arabs* have borrowed. When *PLINY* informs us, that *PETESUCCUS* was named also *TITHOES*, we must either read *PITHOES* from *Pe'thi*, or impute the change of the initial letter to the defective articulation of the *Ethiopians*, who frequently invaded *Egypt*. From the account given by *HERODOTUS*, we may conjecture, that the coffins of the *sacred crocodiles*, as they were called, contained in fact the bodies of those princes, whom both *Egyptians* and *Hindus* named *Sucas*, though *suc* means a parrot in *Sanskrit*, and a crocodile in the Coptick dialect the *Sanskrit* words for a crocodile are *Cumbâra* and *Necra*, to which some expositors of the *Amarâshâ* add *Avasgraba* and *Grôba*, but, if the royal name was symbolical, and implied a peculiar ability to *seize* and *hold*, the symbol might be taken from a bird of prey, as well as from the lizard-kind, especially as a sect of *Egyptians* abhorred the crocodile, and would not have applied it as an emblem of any legal and respectable power, which they would rather have expressed by a hawk, or some distinguished bird of that order others, indeed, worshipped crocodiles, and I am told, that the very legend before us, framed according to their notions, may be found in some of the *Purânas*.

(a) STRABO, B 17 p 811 DAMASCUS, Life of ISIDORUS

(b) B 2 C 148.

We find then three kings, named *Socas*, or *garrets*, living in a *hedge* or a *cage*, or resting either on an *upright pole*, or on one with a *cross-bar*: but who they were, it is not my present object, nor am I now able, to investigate. I will only observe, that besides the king of *Egypt*, whom *PLINY* calls *Suchis*, or *Socis*, the father of the *Cartes*, is named *Socus* by a Greek lexicographer, and *Sucus* by the author of the *Dumyfacks*; and that he was one of the *Cabres* or *Caviras*, who (or at least some of whom) inhabited in former ages the countries adjacent to the *Nile*.

The ruins of that wonderful building, called the *Labyrinth*, are still to be seen, near the lake *Mæris*, at a place which the *Arabs* have named the *Kofr*, or palace, of *Ka'ru'n*, whom they suppose to have been the richest of mortals; as the ruins of *Mi'chi-su'-ca-fba* are in a district, named the *Beldā*, or country, of the same personage. The place last mentioned is, most probably, the labyrinth built, according to *DAMOTELIS* in *PLINY*, by *MOTHERUDIS*, a name derived, I imagine, from *MADNI-KUSHI*. The town of *Meta campi*, mentioned by *PTOLEMY* as opposite to *Pjatibus* above *Syrus*, seems to have had some connection with *Medu-sica*; for *campi* and *sica* were synonymous, in the old *Egyptian*. *Herodotus* at least informs us, that *campi* meant a crocodile in that language; and it appears related to *tusifik* in *Arabic*. *Patyam* (for so the long compound is often abbreviated) seems to have been the labyrinth near *Arvæs*, or *Crasidopolis*, now *Fayum*, which word I suppose corrupted from *Patyam*, or *Phatym*, as the *Copts* would have pronounced it, and my *Pandit* inclines also to think, that the building might have been thus denominated from large pieces of stone or timber projecting, like *patyas*, before the windows, in order to support the frames of a balcony, which, as a new invention, must have attracted the notice of beholders. As to the lake of *Mæris*, I have already exhibited all that I have yet found concerning it.

the stupendous pyramid, said to have been six hundred feet high, in the midst of that lake, was raised, we are told, by a king named Mārīs, Myris, Mārīs, Mālīdis, Māndis, and Imāndis (*a*), a strong instance of one name variously corrupted; and I have no doubt, that the original of all those variations was Mārīs or Mādri. Even to this day in India, the pillars or obelisks, often raised in the middle of tanks, or pools, are called *Mārīs*, but let us proceed to another legend faithfully extracted from the *Mahābhāgavata*, in which we see, beyond a doubt, the affinity of Indian, Egyptian, and Grecian Mythology.

II. On the mountains of *Juddhamū'ha*, in the interior *Cufsa-dwīp*, reigned a virtuous and religious prince, named C'HARVANA'YAKA's, whose son, CARVANA's, preferred arms and hunting, in which he was continually engaged, to the study of the *Vēda*, and was so frequently concerned in contests and affrays with his neighbours, that his father, after many vain admonitions, banished him from his palace and his kingdom; the dauntless young exile retired to the deserts, and at length reached *Mātībōja*, believed to be *Mecca*, where, hungry and fatigued, he bathed in the *Mātībōja-sīrī'ha*, or consecrated well, and passed the night without sleep. VISVACI'SA, then sovereign of that country, had an only daughter PADMAMUC'HI, or with a face like a lotus, who went to perform religious rites to MARA'DE'VA, god of the temple and the well, and there seeing the prince, she brought him refreshment and heard his adventures; their interview ended in mutual love, and the old king, who denied her nothing, consented to their marriage, which was solemnized with the ceremony of *Pāngṛaba*, or taking bonds; and the young pair lived many years happily in the palace of their

(*a*) STEAD, B. 17 p. 811 Deod Sic B. 1. p 55

father. It happened some time after, that the city was besieged by two kings of the *Dávaras* with a numerous army; but CAPE'YANA's entirely defeated them the venerable monarch met his brave son-in-law returning with conquest, and, having resigned the throne to him, went to the banks of the *Cál*, accompanied by his wife, and entered with her into the third order, called *Vánagráf'ba*, or that of *bennus*, in which they passed the remainder of their lives, and, after death, obtained *lays*, or *men with the supreme spirit*; whence their station was named *Layaf'bán*, or *Layavaś*, and was visited, for ages after, by such as hoped for beatitude. CAPE'YANAS, or CAPE'NAS, (for he is differently named in the same book,) adhered so strictly to justice, and governed so mildly, that he was respected by his neighbours and beloved by his subjects; yet he became a great conqueror, always protecting the weak, and punishing their oppressors. All the princes to the east of *Méchibá* paid him tribute; but CA'LASE'NA, king of the exterior *Cysba-dwip*, having insolently refused to become his tributary, he invaded *Abyffima*, and, after a very long battle, at a place named *Ranóysas*, or the *feast of combat*, wholly defeated CA'LASE'NA, whom he replaced on his throne, exacting only a regular acknowledgement of his dominion paramount - then, following the course of the *Cál* river, he came to *Barbara*, or the burning sands of *Nuba*, the king of which country was GULMA, one of the *Tomóyanas*, or the son of MA'NDYA, who was the son of TAMAS, or SANI, by his wife JAKAT'HA'; but from GULMA he met with no resistance, for the wise king laid his diadem at the feet of CAPE'NAS, who restored it, and desired his company, as a friend, in his expedition to *Mijra-f'bán*. The sovereign of *Mijra* was at that time RANASU'RA, who, disdaining submission, sent his son RANADURMADA with a great force against CAPE'NAS, and soon followed him at the head of a more powerful army - an obstinate battle was fought, at a place called afterwards *Ghára-f'bán*, from the terror of the carnage; but RANASU'RA was killed and his troops entirely routed

The

The conqueror placed the prince on the throne of *Mysore*, the capital of which was then called *Vive-purā-pura*, or the city of *Universal Power*; and, having carried immense treasures to *Mochala*, he dedicated them to the God of the temple, resolving to end his days in peaceful devotion. by *PADMAMĀYĀ* he had a daughter named *ANTARMĀDA*, and a son *BHA'LĀYANA*'s, to whom, after the example of ancient monarchs, he resigned his kingdom, when he grew old, and prepared himself for a better life.

Before his death he was very desirous of performing the great sacrifice of a horse, called *Afwanēdha*, but considerable difficulties usually attended that ceremony, for the consecrated horse was to be set at liberty for a certain time, and followed at a distance by the owner, or his champion, who was usually one of his near kinsmen, and, if any person should attempt to stop it in its rambles, a battle must inevitably ensue besides, as the performer of a hundred *Afwanēdhas* became equal to the God of the firmament, *INDRA* was perpetually on the watch, and generally carried off the sacred animal by force or by fraud, though he could not prevent *BELI* from completing his hundredth sacrifice, and that monarch put the supremacy of the *Divas* to proof, at the time, when the *Padmā-mandira* was built on the banks of the *Cumudvati*; nor did he prevail against *RĀDHĀ*, whose combat with *INDRA* himself is described by *CA'LIDA'S* in a style perfectly *Homeric*. The great sage of *CAPE'NAS* obliged him to employ his son in that perilous and delicate service, but *INDRA* contrived to purloin the horse, and *BHA'LĀYANA*'s resolved never to see his father or kingdom, unless he could recover the mystical victim he wandered, therefore, through forests and over deserts, till he came to the bank of the *Ganges* near *Avaca-pura*, or *Alacā-puri*, about twelve miles N. N. W. of *Badari-nā'ib*, and there, in the agonies of despondence, he threw himself on the ground, wishing

wishing for death; but Ganga', the river-goddess, appeared to him, commanded him to return home, and assured him, that he should have a son, whom she would adopt by the name of Ganga'yana', who should overcome INDRA, and restore the horse to his grandfather. Her prediction was at due date accomplished; and the young hero defeated the army of INDRA in a pitched battle near the river Cālī, whence he acquired the title of Virājya-jīt, or vanquisher of INDRA; the field of battle was thence named Sākṣi-ghāṭa; and is also called Virājaya, because the flower of heroes had been there lulled in the sleep of death. BHĀSYĀYANA'S, having a very religious turn of mind, placed his son on the throne, and, observing that his sister ANTARMADA' had the same inclinations, retired with her to the forest of Tapas, in Upper Egypt, both intending to close their days in devout austerities and in meditation on the supreme spirit MA'YA'-DE'VI, or the goddess of worldly illusion, who resembles the APHRODITE Pandemos of the Greeks, and totally differs from JNYA'NA-DE'VI, or the goddess of celestial wisdom, attempted to disturb them, and to prevent them from reaping the fruit of their piety; but she was unable to prevail over the fervent devotion of the two royal anchorites. Her failure of success, however, gave her an unexpected advantage, for ANTARMADA' became too much elated with *astoral pride*, which her name implies; and, boasting of her victory over MA'YA'-DE'VI, she added, that the inhabitants of the three worlds would pay her homage, that she should be like ARUNDHATI, the celebrated consort of VASISHTHA, and that, after her death, she should have a seat in the starry mansion this vaunt provoked MA'YA'-DE'VI to a phrensy of rage, and she flew to AVRVA, requesting him to set on fire the forests of Tapas; but VISHNU, in the shape of a hollow conical mountain, surrounded the princess, and saved her from the flames; whence the place, where she stood, was called the *Ch'bhāṭā*, or the *covered*, and *Perracchmā*,

OR

or the guarded on all sides. The enraged goddess then sent a furious tempest, but VISHNU, assuming the form of a large tree, secured her with its trunk and branches at a place thence named *Rasibhána Ma'ya'-De'vi*, however, seized her, and cast her into a certain sea, which had afterwards the name of *Amagna*, because VISHNU endued its waters with a power of supporting her on their surface; and they have ever since retained that property, so that *nothing sinks* in them.

The fourth and last machination was the most dangerous and malignant De'vi carried ANTARMADA' to the sea-shore and chained her to a rock, that she might be devoured by a *Grába*, or sea-monster, but VISHNU, ever vigilant to preserve her, animated a young hero, named PA'RASICA, who slew the monster, and released the intended victim, at a place named, from her deliverance, *Uddhára-ś'bán*. He conducted her to his own country, and married her at a place, called *Pángrába*, because he there took her by the hand in the nuptial ceremony they passed through life happily, and, after death, were both seated among the stars, together with CAPE'NAS and PADMAMUC'HÍ, who had also the patronymick of CA'SYAPÍ. Among the immediate descendants of PA'RASICA and ANTARMADA', we find VA'RASICA and RASICA, who reigned successively, TIMICA and BHA'LÜCA, who travelled, as merchants, into distant countries, and BHA'LÜCA'YANI, who seems to have been the last of the race.

The pedigree of CAPE'NAS has been carefully preserved; and many Bráhmins are proud of their descent from him.

CA'SYAPA and ADITI.

'Sándiláyanás,

Maunjáyanás,

Cóbaláyanás,

Cibaldyanás,	Jánaváníáyanás;
Páyacáyanás,	Vákyavásfáyanás;
Dailáyáyanás,	Chárvanáyáyanás,
Audamógbéyanás,	CAPE'YANA'S,
Mátráyanás,	Bbdáyáyanás;
Vacyásáldbáyáyanás,	Gángéyanás;
Chárvagéyanás,	Sátrugéyanás;
Cárufbáyanás,	Vadáyáyanás,
Vártáyáyanás,	Jángbráyáyanás,
Vélsanáyáyanás,	Cánsáyáyanás.

A twenty-third prince, named CANSALA'YANA'S, is added in some genealogical tables.

This is manifestly the same story with that of CEPHEUS and CASSIOPEA, PERSEUS and ANDROMEDA. The first name was written CAPHEUS or CA-PHYEUS by the Arcadians (*a*), and is clearly taken from CAPE'YA, the termination *nás* being frequently rejected, some assert, that he left no male issue, and APOLLODORUS only says, that he had a daughter, named STEROPE, the same, I presume, with ANDROMEDA. The wife of CAPE'YA was either descended herself from CASYAPA, or was named CA'SYAPI', after her marriage with a prince of that lineage. PA'RASICA is declared in the *Parámas* to have been so called, because he came from *para*, or *beyond*, that is from beyond the river *Cáb*, or from the west of it; since it appears from the context, that he travelled from west to east the countries on *this side* of the

(a) Panian, Arcad

Nile, with respect to India, have thence been denominated *Arva-ś'bhān*, or, as the *Perians* write it, *Arabīshāz*, while those nations, who were seated on the other side of it, were called *Párasicáb*, and hence came the *Pbarusū*, or *Perse*, of *Lybia*, who are said by *PLINY* to have been of *Perian* origin, or descended from *PERSEUS*, the chief scene of whose achievements was all the country from the western bank of the *Nile* to the ocean, but I do not believe, that the word *Párasicáb* has any relation to the *Perians*, who in *Sanskrit* are called *Páraśāb*, or inhabitants of *Parasa*, and sometimes *Páraśavab*, which may be derived from *PARASU*, or *Parasváb*, from their excellent *borses*. I must not omit, that *Arva-ś'bhān*, or *Arabia*, is by some derived from *Arvan*, which signifies a fine *borse*, the final letter being omitted in composition. *ARVAN* is also the name of so ancient sage, believed to be a son of *BRAHMA*.

In order to prove, by every species of evidence, the identity of the *Grecian* and *Indian* fables, I one night requested my *Pandit*, who is a learned astronomer, to show me among the stars the constellation of *Antarmadé*, and he instantly pointed to *Andromeda*, which I had taken care not to show him first as an affectation, with which I was acquainted he afterwards brought me a very rare, and wonderfully curious, book in *Sanskrit*, with a distinct chapter on the *Upanacshatras*, or constellations out of the Zodiack, and with delineations of *CAPE'YA*, of *CA'STAPI* seated, with a lotos-flower in her hand, of *ANTARMAOA'*, chained with the fish near her, and of *PA'RASICA* holding the head of a monster, which he had slain in battle, dropping blood, with snakes instead of hair, according to the explanation given in the book, but let us return to the geography of the *Purānas*.

We mentioned, in the first section, the two *Jwálámu'bi*, near one of which the father of CAPE'YANA's resided the *Jwálámu'bī*, now *Coraðr*, which was also named *Aniyájs-dévs-f'bán*, was at no great distance from the Tigris, and seems, as we intimated before, to be the *ru' Aśvina*, 'Ispī' of STRABO (*a*) I suppose it to be the original *Ur* of the *Chaldæans*, original, I say, because there were several places of that name, both in *Syria* and *Chaldea*, where superstitious honours were paid to fire, either natural or artificial. The epithet *great* is applied in some *Puráṇas* to this *Jwálámu'bī*, and in others to that near *Batū*, to this, perhaps, by way of eminence in sanctity, and to that, because its flames were more extended and fiercer. *Laya-f'bán*, or *Layavat*, where Visvæse'na closed his days near the *Cālī*, we have also mentioned in a preceding section; and it was, probably, the *Lete* of JOSEPHUS (*b*), or some place very near it STEPHANUS of *Byzantium* calls it *Letopolis*, or *Latepolis*, and says, that it was a suburb of *Memp̄is* near the pyramids (*c*). *Ghāra-f'bán* is yet unknown: it could not have been very far from *Vifāra-Ārīs-pura*, but *universal fame* is applicable to so many cities of *Egypt*, that we cannot appropriate it to any one of them. Of *Tapas* and *Tapovanā* we have already spoken, and *Cī'bādītā*, or *Perswacfītā*, must have been in those forests of *Theban* the tree of *Racfbūtā* was, possibly, the Holy Sycomore mentioned by PLINY, fifty-four miles above *Syene*, on the banks of the *Nile* (*d*). The sea of *Amagna* was, most probably, the *Aṣphaltī* lake, the waters of which had, said, some assert, have to this day, so buoyant a quality, that nothing could sink in them. MAUNDREL takes particular notice of this wonderful property. That lake was not far from *Uddbhāra-f'bán*, or *Joppe*, where *Andromeda* was chained to a rock. PLINY says, that the

(*a*) B. 17 p. 738 (*b*) B. 2 (*c*) B. 17 (*d*) Plin. L. 6 C. 29

place of her confinement and deliverance was shown there in his time (a); and the *Sanskrit* word *Tampā*, which the *Arabs* pronounce *Yafab* and *Eusepius* call *Jeppa*, means *deliverance from imminent danger*. On the *Egyptian* shore, opposite to *Jeppa*, was a place called the *Watch-tower* of *PERSEUS* by *Gräba*, a crocodile or a shark, we may understand also one of *Rāhu's* descendants, among whom the females were the *Grasas*, or *Greea*, of the western mythologists. *Pānigraba* was, I suppose, the town of *Panopolis*, which could have no relation to the God *PAN*, for *HERODOTUS*, who had been there, informs us, that it was called both *Panopolis* and *Chemmis*, that the inhabitants of it paid divine honours to *PERSEUS*, and boasted that he was born in it, but had *PAN*, of whom that historian frequently speaks, been the tutelary god of the town, he would certainly have mentioned that fact in the acts of the council of *Ephesus*, we find that *SABINUS* was *Pans Episcopus*, as if one named of the town had been *Pans* or *Pamis*, and it might have been anciently named *Pāni-gṛiba*, the *mansion* or *place of the band*, that is of *wedlock*, which the *Grecs* would of course translate *Panopolis*, as we find *Rāja-gṛiba* rendered *Rāja-maball* in the same sense. On the banks of the *Niger* was another town of that name, called *Ponagra* by *PTOLEMY*, and, to the north of it, we see *Timica*, *Rufis-bar*, *Rufuccurum*, and *Ruficads*, which have a great affinity with *TIMICA* and *RASICA*, before mentioned as descended from *PERSEUS* both *Ruficār* and *Rufic-ber* are *Indian* appellations of places, the first meaning the *enclosed ground* or *orchard*, and the second, (which is a corruption from the *Sanskrit*) the *house*, of *Rasica*. Great confusion has arisen in the geography of *India* from the resemblance in sound of *gber*, a *house*, *gerb*, a *fortress*, and the second syllable of *nagar*, a *town*, thus *Krishna-nagar* is pronounced *Kishna-gber*, and *Ram-*

(a) L 5 C 13, and 31 See also *Jesippus*, *Strabo*, *Mela*

nagar, *Rasna-gber*, both very erroneously; so *Bysnagar* was probably *Vishnu-nagar*, or *Vipsa-nagar*—we must beware of this, and the like, confusion, when we examine the many names of places in *Lybia* and other parts of *Africa*, which are either pure *Sanskrit*, or in such of the dialects as are spoken in the west of *India*.

Let us conclude this article with observing, that the great extent of CAFE'YA's empire appears from the Greek Mythologists and other ancient writers, for the most considerable part of *Africa* was called *Cepheus* from his full name CAFE'YANAS, the *Persians* from him were styled *Cepheenes*, and a district in the south of *Armenia* was denominata *Cepheus*, a passage also in PLINY shows, that his dominion included *Ethiopia*, *Syria*, and the intermediate countries. “*Ethiopia*, says he, was worn out by the wars of the *Egyptians*, alternately “ruling and serving; it was famed, however, and powerful even to the *Trojan* “wars in the reign of *MEMNON*, and that, in the time of king *CEPHEUS*, “it had command over *Syria*, and on our coast, is evident from the fables of “*ANOROMEDA*”

III The following legend is taken from the *Mahácaarpa*, and is there said expressly to be an *Egyptian* story. An ancient king, who was named CHATU-RAYANA, because he was a perfect master of the four *Védas*, to which name VATSA was usually prefixed, because he was descended from VATSA, a celebrated sage, passed a hundred years in a dark cavern of *Crisna-giri*, or the Black Mountain, on the banks of the *Cár*, performing the most rigorous acts of devotion at length VISHNU, surnamed GUHA'SAYA, or dwelling in caves, appeared to him, and promised him, all that he desired, *male issue*, adding, that his son should be named TAMO'VATSA, in allusion to the *darkness*, in which his father

father had so long practised religious austerities TAMO'VATSA became a warlike and ambitious, but wise and devout, prince he performed austere acts of humiliation to VISHNU, with a desire of enlarging his empire, and the God granted him boon. Having heard, that *Misra-śāh* was governed by NIRMARYA'DA (a name, which may possibly be the origin of NIMROO), who was powerful and unjust, he went with his chosen troops into that country, and, without a declaration of war, began to administer justice among the people and to give them a specimen of a good king he even treated with disdain an expostulatory message from NIRMARYA'DA, who marched against him with a formidable army, but was killed in a battle, which lasted twelve days, and in which TAMO'VATSA fought like a second PARASU RA'MA. The conqueror placed himself on the throne of *Misra*, and governed the kingdom with perfect equity his son BA'HĀVATSA devoted himself to religion and dwelt in a forest, having resigned his dominion to his son RUCMAVATSA, who tenderly loved his people, and so highly improved his country, that from his just revenues he amassed an incredible treasure His wealth was so great, that he raised three mountains, called *Rucmādri*, *Rajatādri*, and *Retnādri*, or the mountain of gold, of silver, and of gems the author says mountains, but it appears from the context that they were fabrics, like mountains, and probably in a pyramidal form.

TAMO'VATSA seems to be the TIMAUS of MANETHO, who says, according to MR BRYANT's translation, that "they once had a king, called TIMAUS, " in whose reign there came on a sudden into their country a large body of "obscure people, who with great boldness invaded the land, took it without " opposition, and behaved very barbarously, slaying the men, and enslaving their " wives and children" The Hindus, indeed, say, that the invaders were headed by TAMO'VATSA, who behaved with justice to the natives, but almost

most wholly destroyed the king's army, as the son of JAMADAGNI nearly extirpated the military class; but the fragments of MANETHO, although they contain curious matter, are not free from the suspicion of errors and transpositions. The seat of TAMO'VATSA, called Tamōvatja *β bān*, seems to be the town of *Tmuis*, now *Tmālī*, in the district of *Tmuis*; in later times it appears to have communicated its name to the *Pbāmetuk* branch, and thence to *Tamātib*, the present *Damietta*. We before ascertained the situation of *Crisma-gari*, and, as to the three stupendous edifices, called *mountains* from their size and form, there can be little or no doubt, that they were the three great Pyramids near *Myra-f'bān*, or *Memphis*, which, according to the *Parámas* and to *PLINY*, were built from a motive of ostentation, but, according to *ARISTOTLE*, were *monuments of tyranny*. RUCMAVATSA was no tyrant to his own people, whom he *cherished*, says the *Mabācīpa*, as if they had been *his own children*, but he might have compelled the native *Egyptians* to work, for the sake of keeping them employed and subduing their spirit. It is no wonder, that authors differ as to the founders of those vast buildings, for the people of *Egypt*, says *HERODOTUS*, held their memory in such detestation, that they would not even pronounce their names; they told him, however, that they were built by a herdsman, whom he calls *Philitius*, and who was a leader of the *Páris* or *Bbils* mentioned in our first section. The pyramids might have been called *mountains of gold, silver, and precious stones*, in the hyperbolical style of the East, but I rather suppose, that the first was said to be of *gold*, because it was coated with yellow marble, the second of *silver*, because it had a coating of white marble, and the third of *jewels*, because it excelled the others in magnificence, being coated with a beautiful spotted marble of a fine grain, and susceptible of an exquisite polish (a). The *Brāhmens* never understood, that any

(a) *Savary*, Vol I p 246

pyramid in *Mysra-f'bala*, or *Egypt*, was intended as a repository for the dead, and no such idea is conveyed by the *Mahabalpa*, where several other pyramids are expressly mentioned as places of worship. There are pyramids now at *Bénarès*, but on a small scale, with subterranean passages under them, which are said to extend many miles when the doors, which close them, are opened, we perceive only dark holes, which do not seem of great extent, and pilgrims no longer resort to them through fear of mephitic air or of noxious reptiles. The narrow passage, leading to the great pyramid in *Egypt*, was designed to render the holy apartment less accessible, and to inspire the votaries with more awe the caves of the oracle at *Delphi*, of *TROPHONIUS*, and of *New-Grange* in *Ireland*, had narrow passages answering the purpose of those in *Egypt* and *India*, nor is it unreasonable to suppose, that the fabulous relations concerning the grot of the *Sibyl* in *Italy*, and the purgatory of *St PATRICK*, were derived from a similar practice and motive, which seem to have prevailed over the whole pagan world, and are often alluded to in Scripture. M MAILLET has endeavoured to show, in a most elaborate work, that the founder of the great pyramid lay entombed in it, and that its entrance was afterwards closed, but it appears, that the builder of it was not buried there, and it was certainly opened in the times of *HERODOTUS* and *PLINY*. On my describing the great *Egyptian* pyramid to several very learned *Brahmins*, they declared it at once to have been a temple, and one of them asked, if it had not a communication under ground with the river *Cæs*, when I answered, that such a passage was mentioned as having existed, and that a well was at this day to be seen, they unanimously agreed, that it was a place appropriated to the worship of *PAOMA'-oë'vi*, and that the supposed tomb was a trough, which, on certain festivals, her priests used to fill with the sacred water and lotos flowers. What *PLINY* says of the Labyrinth is applicable also to the Pyramid some insisted, that it was the palace of a certain king, some, that it had been the

the tomb of Mœris, and others, that it was built for the purpose of holy rites a diversity of opinion among the Greeks, which shows how little we can rely on them, and, in truth, their pride made them in general very careless and superficial inquirers into the antiquities and literature of other nations.

IV A singular story, told in the *Uttara-charitra*, seems connected with the people, whom, from their principal city, we call *Romans*. It is related, that a sage, named A'LAVA'LA, resided on the verge of *Himâdi*, and spent his time in cultivating orchards and gardens, his name or title implying a *small canal* or *trench*, usually dug round trees, for the purpose of watering them. He had an only son, whose name, in the patronymick form, was A'LAVA'LI. The young Brâbmen was beautiful as CA'MADE'VA, but of an amorous and roving disposition, and, having left the house of his father, in company with some youths like himself, he travelled as far as the city of *Rômai*, which is described as agreeably situated and almost impregnably strong. The country, in which it stood, was inhabited by *Mlêch'bas*, or men who speak a barbarous dialect, and their king had a lovely daughter, who happening to meet A'LAVA'LI, found means to discourse with him. The young pair were soon mutually enamoured, and they had frequent interviews in a secret grove or garden, till the princess became pregnant, and, her damsels having betrayed her to the king, he gave orders for the immediate execution of A'LAVA'LI, but she had sufficient power to effect his escape from the kingdom. He returned home, but, his comrades having long deserted him, and informed his father of his intercourse with the daughter of a *Mlêch'ba*, the irritated sage refused to admit him into his mansion. He wandered, therefore, from country to country, till he arrived in *Barbara*, where he suffered extreme pain from the burning sands, and having reached the banks

banks of the *Criñna*, he performed a rigorous penance for many years, during which he barely supported his wife with water and dry leaves. At length MAHA'-DR̄VA appeared to him, assured him that his offence was forgiven, and gave him leave, on his humble request, to fix his abode on the banks of the holy river *Cit̄i*, restoring him to his lost sacerdotal chāfa, and promising an increase of virtue and divine irradiation. From the character, in which the God revealed himself, he was afterwards named AGHANĀRA, or *Lord of him, who forsakes sin*, and the station of A'LAVA'LA was called *Aghabija-śākham*, or *Aghabéjam*.

Now we find the outline of a similar tale in the ancient *Roman* history, and one would think that the *Hindu* writers wished to supply what was deficient in it. The old deities of *Rome* were chiefly rural, such as the *Fauns*, the *Sylvans*, and others who presided over *orchards* and *gardens*, like the sage A'LAVA'LA. The Sanscrit word *āla*, which is lengthened to *ālavāla*, when the trench is carried quite round the tree, seems to be the root of *ālā*, a vineyard or an orchard, *ālām* in the same sense, *ālā*, gardens, and *ālāmī*, a gardener or husbandman. We read of VERTUMNA with child by APOLLO, the daughter of FAUNUS by HERCULES, and those of NUMITOR and TARECHETIUS, by some unknown Gods, or at least in a supernatural manner, which may be the same story differently told; the king of the *Mithibas* would, no doubt, have saved the honour of his family, by pretending that his daughter had received the caresses of a rural divinity.

The origin of *Rome* is very uncertain; but it appears to have been at first a place of worship raised by the *Pelasgi* under the command of a leader, who, like many others, was named HERCULES by erecting other edifices round it, they made it the capital of their new western settlements; and it became so

strong a city, that the Greeks called it *Rhamē*, or power itself; but *Rāmā*, which all the *Hindus* place very far in the west, was thus denominated, according to them, from *Rōma*, or wool, because its inhabitants wore mantles of woollen cloth; as the Greeks gave the epithet of *λινοχλαίνες*, from linen vesture, to the people of *Egypt*; and to those eastern nations, with whom they were acquainted. *PLINY* says, that the primitive name of *Rome* was studiously concealed by the *Romans* (*a*), but *AUGUSTINE* informs us, that it was *Febris* probably that word should be written *Phoboris*. About two generations before the *Troyan* war, the *Paleges* began to lose their influence in the west, and *Rome* gradually dwindled into a place of little or no consequence, but the old temple remained in it according to the rules of grammatical derivation, it is more probable, that *ROMULUS* was thus named, because he was found, when an infant, near the site of old *Rome*, than that new *Rome*, which he rebuilt and restored to power, should have been so called from *ROMULUS*. A certain *ROMANUS*, believed to be a son of *ULYSSES*, is by some supposed to have built *Rome*, with as little reason as *ROMULUS*, if, indeed, they were not the same personage. *ROMANUS*, perhaps, was the king *LATINUS*, whom *HESIOD* mentions as *very powerful*, but, whether he was the foreign prince, whose daughter inspired *A'LAVA'LI* with love, I cannot pretend to decide, however, these inquiries relate to the *dwisp* of *Variāba*, and the scope of our work leads us back to that of *CUSHA*.

It is reasonable to believe, that *Aghabéyam* was the celebrated and ancient city of *Axum* in the vicinity of the little *Crisbūā*, or the *Afaboras* of our old geographers, now called *Tacazzé*, which, according to Mr *Bruce*, is the largest river in *Abyffensa* next to the *Abay* or *Nile* (*b*) it is also held

(*a*) L. 3 C. 5

(*b*) Vol. 3 p. 157 612

sacred

sacred, and the natives call it *Tenuj Abay*, or Little *Nile*; a very ancient appellation, for STRABO gives the name of *Teneis* to the country bordering on that river (*a*) Hence, perhaps, the ancients mistook this river for the *Nile*, to which they erroneously applied the name *Sris*, for the true *Sris* appears to be the Little *Crißna*. The *Agous*, who live towards the heads of the *Nile* and the *Tacazzë*, may have derived their name from *Agbaba*, and we find the race of *A'LAVALI* settled as well in the isles of the Red Sea near the *Abyssinian* coast, as in the country adjacent to *Agbabësam* those isles were called *Alien* and *Alalee*, and, in the districts about the *Tacazzë*, were the *Eles* or *Eleu*, surnamed *Rbisophagi*, who dwelt on the banks of the *Astopus* and the *Akaboras*, in which denominations of islands and tribes we may trace the radical word *A'la* or *A'lavâla*.

The smaller *Crißna* was so denominated, either because its waters were black, or because it had its origin from an achievement of CRISHNA, and its name *Aß'bñamai*, was giveo on an occasion, which has been already mentioned, but which may here be related at large from the *Brâbmânda*. When CRISHNA visited *Sanc'ha-dwip*, and had destroyed the demon, who infested that delightful country, he passed along the bank of a river, and was charmed with a delicious odour, which its waters diffused in their course he was eager to view the source of so fragrant a stream, but was informed by the natives, that it flowed from the temples of an elephant, immensely large, milk-white, and beautifully formed, that he governed a numerous race of elephants, and that the odoriferous fluid, which exuded from his temples in the season of love, had formed the river, which, from his name, was called *Sanc'hanaga*, that the

(a) B 16 p 770

Dévas, or inferior gods, and the *Asaras*, or nymphs, bathed and sported in its waters, impassioned and intoxicated with the liquid perfume. The Hindu poets frequently allude to the fragrant juice which oozes at certain seasons from small ducts in the temples of the male elephant, and is useful in relieving him from the redundant moisture, with which he is then oppressed, and they even describe the bees as allure'd by the scent, and mistaking it for that of the sweetest flowers, but, though ARRIAN mentions this curious fact, no modern naturalist, I believe, has taken notice of it. CRISHNA was more desirous than before of seeing so wonderful a phenomenon, and formed a design of possessing the elephant himself, but SANC'HANA'OA led against him a vast army of elephants, and attacked him with such fury, that the incarnate God spent seven days in subduing the assailants, and seven more in attempting to seize their leader, whom at last he was obliged to kill with a stroke of his *Cakra* the head of the huge beast had no sooner fallen on the ground, where it lay like a mountain, than a beautiful *Yasha*, or Genius, sprang from the body, who prostrated himself before CRISHNA, informing him, that he was VIJAYA-VERDHANA, who had once offended MAHA'DE'VA, and been condemned by him to pass through a mortal form, that he was supremely blessed in owing his deliverance to so mighty a God, and would instantly, with his permission, return to his appeased master. The victor assented, and left the field of battle, where, from the bones of the slain elephants, rose a lake, thence named *Af'bistarâga*, from which flowed the river *Af'bimatî*, whose hallowed waters, adds the author of the *Purâna*, remove sin and worldly affections *af'bi*, a *bone*, pronounced *af'bi* in some provinces, is clearly the Greek *ris*, and its derivative *af'bimat* becomes *af'bimâ* in the first case masculine, whence the river is by some old geographers called *Af'amenos*, for the names of rivers, which are feminine for the most part in *Sanskrit*, are generally masculine in the western languages.

We

We find it named also *Aſtaboras* and *Aſtabaras*, for *Aſtravara* means the most excellent bone, or ivory and the *Adabara*, who lived, says PLINY, on its banks, took their name, perhaps, from the river, the word *aſt̄hi* being pronounced *āti* and *ādi* in some vulgar dialects as the *Sanskrit* word *bâhi*, an elephant, is corrupted into *bâhi*; *Mari*, or *Sanc'bânaḡa*, was anciently named *Aſtababas*, or *Aſtabas*, possibly from *Hastīrava*, or flowing from an elephant, in allusion to the legend before related, and one would have thought *Hastimān* or *Hastimán*, a more rational appellation for the Tacazze, since there are in fact many elephants in the country, which it waters. We must beware of confounding *SANC'HANA'GA*, or the *Elephant* of *Sanc'ba-dwîp*, with *SANC'HA-NA'OA*, or the *Shell-serpent*, of whom we have already given a sufficient account, and concerning whom we have nothing to add, except that the people of the mountains, now called *Hubâb*, have legendary traditions of a Snake, who formerly reigned over them, and conquered the kingdom of *Surd*.

V Concerning the river *Nandâ*, or the *Nile* of *Abyfima*, we meet with the following tales in the *Padmacôba*, or *Treasure of Lotus-flowers*. A king, named *APPYATANA* finding himself declining very low in the vale of years, resigned his throne to *APAMVATIA*, his son, and repaired with his wife *S'ARMADA'* to the hermitage of a renowned and holy *Brâhmaṇa*, whose name was *MRICA* or *Mârcu*, intending to consult him on the mode of entering into the third *Arama*, or order, called *vâneprâha* they found only the son of the sage, named *Mârcu*, or *Mârcava*, who gave them full instructions, and accompanied them to the hilly parts of the country, where he advised them to reside. When they arrived at their destined retreat, the *Dévas*, pleased with their party, scattered flowers on them like rain, whence the mountains were called

Pûṣpavarjâ,

Pus̄pavart̄sha, according to the derivation of the Mythologists; but *Pus̄pavart̄sham*, which is the name of the country round them, may signify no more than the region of flowers—the Gods were not satisfied with a shower of blossoms, and when the first ceremonies were performed at *Pus̄pa-verfa-f'bān*, they rained also *tears of joy*, which being mingled with those of the royal pair and the pious hermit, formed the river *Nandā*, whose waters hastened to join the *Cālī*, and their united streams fell at length into the *Sanc'habdī*, or sea of *Sanc'ha*. The goddess, who presided over the *Nandā*, passed near the mansion of a sage, named *SA'NTAPANA*, a child of *SANTAPANA*, or the Sun, who ran with delight to meet her and conducted her near his hermitage, where *Dēvatās* and *Rishis* were assembled to pay her divine honours—they attended her to the place of her confluence with the great *Criñca*, near which was afterwards built *Sāntapana-f'bān*, and there the sage fixed a *linga*, or emblem of *SA'NTAPANA-SIVA*, to which prostrations must be made, after prescribed ablation in the hallowed waters, by all such as desire a seat in the mansions of *Swarga*.

The mountains and country of *Pus̄pavart̄sha* seem to be those round the lake *Dembea*, which immediately after the rains, says Mr BRUCE, look, from the blossoms of the *Wanzey*, as if they were covered with white linen or new fallen snow. DIODORUS calls them *Pisuras* in the oblique case, and *STANBO*, *Pſebos*, the lake itself being also named *Pſibos*, or *Pſeo*, from the *Sanskrit* word *pus̄pa*. By one of the old *Hindu* writers the river *Nandā* is placed between *Barbara* and *Cusba-dwip*, by another, in *Sanc'ha-dwip* itself, but this is easily reconciled, for, according to the more ancient division of the earth, the exterior *dwip* of *CUSHA* was considered as a part of *Sanc'ha-dwip*, though, in the new division, it is just the reverse all agree, that the *Nandā* runs, in great part of its course, from south to north, and hence many *Brāhmens*

draw

draw a conclusion, which by no means follows, that the *Cál*, which it joins, must flow from west to east. *Sāntapana p'bhān*, I conceive to have stood at the *prayāga* or *trevīnd*, that is, at the confluence of the smaller *Criśnā* with the united waters of the *Nandā* and the *Cál*, and I suppose it to have been the *APOLLINIS oppidum* of *PLINY* (a), or the capital of the *Adiabara*, called also *Megabars*, whom I have already mentioned for *SĀNTAPANA* was an *avatār*, or incarnate form, of the Sun, and the country round his *aṣṭrama*, or hermitage, is known to this day by the name of *Kuara*, which means the Sun, according to Mr BRUCE, and which is no other than the *Sanskrit* word *Cvāra*, or going round the earth the *Nandā*, I presume, or *Nile* of *Abyssinia*, was also named the river of *SĀNTAPANA*, whence the *Greeks* first made *Aṣṭapā* in the oblique case, and thence, as usual, formed the nominative *Aṣṭapus*. According to the *Purāṇas*, the *Nandā* and Little *Criśnā* unite, before they fall into the *Cál*, and *PTOLEMY* also supposes that they join near the southern border of *Meroe*, and then are divided, one branch flowing eastward, and another westward, into the main body of the *Nile* that inquisitive geographer acknowledges himself indebted for much useful information to many learned *Indians*, whom he knew at *Alexandria*, and those *Hindus* were probably acquainted with the *Purāṇas*, but *ERATOSTHENES* was better informed than *PTOLEMY* with respect to the rivers in question, and the mistake of the *Hindu* authors may have arisen from a fact, mentioned by Mr BRUCE, that, during the rains, the floods divide themselves, part running westward into the *Nile*, part eastward into the *Tacazze*. It should not be omitted, that the country of the sage *Mricu* and his son *Ma'rcava*, seems to be that of the *Macrobi*, now inhabited by the *Gonguas*, *Gubas*, and *Shangallas*, the *Greeks*, according to their custom, having changed *Marcaba* into *Microbius*, or long-lived, though

(a) Lib 6 Cap 30

that

that country, says the *Abyssinian* traveller, is one of the most unhealthy on earth; indeed, if MA'RCANDE'YA, the son of MILICANDU, be the same person with MA'RCAYA, he was truly *Marcasius*, and one of the nine long-lived sages of the *Purâns*.

VI. The next legend is taken from the *Mahâkâlîcî*; and we introduce it here as illustrative of that, which has been related in the second section, concerning the two *Indian* Gods of Medicine, to whom some places in *Egypt* were consecrated.

A most pious and venerable Sage, named RISHI'C'SA, being very far advanced in years, had resolved to visit, before he died, all the famed places of pilgrimage, and, having performed his resolution, he bathed at last in the sacred water of the *Câlî*, where he observed some fishes engaged in amorous play, and reflecting on their numerous progeny, which would sport like them in the stream, he lamented the improbability of his leaving any children—but, since he might possibly be a father, even at his great age, he went immediately to the king of that country, HIRANTAVERNA, who had fifty daughters, and demanded one of them in marriage. So strange a demand gave the prince great uneasiness, yet he was unwilling to incur the displeasure of a saint, whose imprecations he dreaded—he, therefore, invoked HERI, or VISHNU, to inspire him with a wise answer, and told the hoary philosopher, that he should marry any one of his daughters, who of her own accord should fix on him as her bridegroom. The sage, rather disconcerted, left the palace, but, calling to mind the two sons of ASWINI, he hastened to their terrestrial abode, and requested, that they would bestow on him both youth and beauty—they immediately conducted him to *Abhimatada*, which we suppose to be *Abydus* in Upper *Egypt*, and, when he had bathed in the pool of *Râpayaurvana*, he was restored

restored to the flower of his age with the graces and charms of CA'MADE'VA. On his return to the palace, he entered the secret apartments, called *antabpara*, where the fifty princesses were assembled, and they were all so transported with the vision of more than human beauty, that they fell into an *eclœsy*, whence the place was afterwards named *Möbä-s'ban* or *Möbana*, and is, possibly, the same with *Möbaman*. They no sooner had recovered from their trance, than each of them exclaimed, that she would be his bride, and, their altercation having brought *HIRANYAVERNA* into their apartment, he terminated the contest by giving them all in marriage to *Rishice'sa*, who became the father of a hundred sons; and, when he succeeded to the throne, built the city of *Suc'baverddhana*, framed *vumānas*, or celestial self moving cars, in which he visited the Gods, and made gardens abounding in delights, which rivalled the bowers of INDRA, but, having gratified the desire, which he formed at *Matsyagangama*, or the place where the *fish* were *assembled*, he resigned the kingdom to his eldest son *HIRANTAVRIDOHA*, and returned in his former shape to the banks of the *Cälî*, where he closed his days in devotion.

VII A very communicative *Pandit* having told me a short story, which belongs to the subject of this section, it seems proper to mention it, though I do not know from what *Purân* it is taken. ARUNA'TRI, the fifth in descent from ATKI before named, was performing religious *rates* on the Dérâvâna mountains near the site of the modern Câbul, when a hero, whose name was TULYA, desired his spiritual advisee, informing him, that he had just completed the conquest of *Barbara*, subdued the *Syâmamucbas*, who lived to the east of the river *Câlî*, and overcome the *Sanc'bayanâs*, but that so great an effusion of blood, for the sake of dominion and fame, had stained his soul with a sinful impurity, which he was desirous of expiating. The Sage accordingly pre-

*Scribed a fit penance, which the conqueror performed in the interior *Cufba-dwip*. A certain *THOULES* or *TAULES* is mentioned in *Egyptian history* as a son of *Orus the Shepherd**

VIII. In the first part of this essay, we intimated an opinion, that *Ugra-f'bāu* was a part of *Mempbis*, and that *UORA*, whom the *Hindus* make a king of *Dwārātā* in *Gujara-dés* or *Gujarāt*, was the *UCHOREUS*, or *Oodus*, of the *Greeks*, nor is it impossible, that *VEXORIS*, who is represented as a great conqueror, was the same person with *UCHOREUS*. The story of *UORA*, or *UGRASE'NA*, we find in a book, entitled, *Amarāśwara-sangraha-tantra*, from which the following passage is verbally translated “ *UGRASE'NA*, chief of kings, was “ a bright ornament of the *Yādava* race, and, having taken *KRISHNA* for “ his associate, he became sovereign of all the *Dwipas*; the *Druás*, the *Yac-* “ *shas*, and the *Rāgbojas*, paid him tribute again and again, having entered “ *Cufba-dwip*, and vanquished its princes elate with pride, the monarch raised “ an image of *ISWĀRA* on the banks of the river *Cālī*, whence the God was “ famed by the title of *UORE'SWARA*, and the place was called *Ugra-f'bāsa*. ”

IX. The following legend from the *Uttara-e'banda* is manifestly connected with the oldest history and mythology in the world. *INDRA*, king of *Mēru*, having slain a *Dātya* of the sacerdotal class, was obliged to retire from the world, in order to perform the penance ordained for the crime of *Brahmabatā*, or the murder of a *Brāhmaṇa*: his dominions were soon in the greatest disorder, and the rebel *Dātyas* oppressed the *Dēvas*, who applied for assistance to *NAHUSHA*, a prince of distinguished virtues, whom they unanimously elected king of their heavenly mansions, with the title of *DRVANAHUSHA*. His first object was to reduce the *Dātyas* and the sovereigns of all the *dwips*, who had

had shaken off their allegiance; for which purpose he raised an immense army, and marched through the interior *Cufa-dwip*, or *Iran* and *Arabia*, through the exterior *dvip* of *Cusha*, or *Ethiopia*, through *Senc'be-dwip* or *Egypt*, through *Varâba-dwip* or *Europe*, through *Chandra-dwip*, and through the countries now called *Siberia* and *China*. When he invaded *Egypt*, he overthrew the combined forces of the *Cusila-cîcas* and *Syâma-muc'has* with so terrible a carnage, that the *Câlî* (a word, which means also the *female devourer*) was reported to have swallowed up the natives of *Egypt*, whose bodies were thrown into her stream. During his travels he built many places of worship, and gave each of them the title of *Dévanâbyûshem* the principal rivers of the countries, through which he passed, were also distinguished by his name, NAHUSHA being an appellation of the *Nile*, of the *Chacshu* or *Oxus*, of the *Varâba* or *Iffer*, and of several others. He returned through *India* to *Méru*, but unhappily fell in love with *Saci* or *Pulômaja'*, the consort of *Indra*, who secretly resolved on perfect fidelity to her lord, and, by the advice of *Vrihas-pati*, regent of the planet *Jupiter*, and preceptor of the *Divas*, promised NAHUSHA to favour his addresses, if he would visit her in a *dôla*, or palanquin, carried on the shoulders of the holiest *Brâhmens* he had sufficient influence to procure a set of reverend bearers, but such was the slowness of their motion, and so great was his eagerness to see his beloved, that he said with impatience to the chief of them *Serpe*, *Serpe*, which has precisely the same sense in *Sanskrit* and in *Latin*, and the sage, little used to such an imperative, answered, "be "thyself a serpent". Such was the power of divine learning, that the imprecation was no sooner pronounced, than the king fell on the earth in the shape of that large serpent, which is called *Hágara* in *Sanskrit*, and *Boa* by Naturalists in that state of humiliation he found his way to the *Black Mountains*, and glided

in search of prey along the banks of the *Câlî*, but, having once attempted to swallow a *Brâhmaṇa* deeply learned in the *Vîdas*, he felt a scorching flame in his throat, and was obliged to disgorge the sage alive, by contact with whom his own intellects, which had been obscured by his fall, became irradiated, and he remembered with penitence his crime and its punishment. He ceased from that day to devour human creatures, and, having recovered his articulation together with his understanding, he wandered through the regions adjacent to the *Nile*, in search of some holy *Brâhmaṇa*, who could predict the termination of his deserved misery, with this view he put many artful questions to all, whom he met, and at length received information, that he would be restored to his pristine shape by the sons of *PANDU*. He had no resource, therefore, but patience, and again traversed the world, visiting all the temples and places of pilgrimage, which he had named from himself in his more fortunate expedition. At last he came to the snowy mountains of *Himâlaya*, where he waited with resignation for the arrival of the *PAN'DAVAS*, whose adventures are the subject of *VYASA*'s great Epick Poem.

This fable of *DEVA-NAHUSHA*, who is always called *DEO-NAUSH* in the popular dialects, is clearly the same in part with that of *DIONYSUS*, whether it allude to any single personage, or to a whole colony, and we see in it the origin of the *Grecian* fiction, that *DIONYSUS* was fewed up in the *Méros*, or *sibig*, of *JUPITER*, for *Méru*, on which *DEVA-NAHUSHA* resided for a time, was the seat of *INDRA*, or *ZEUS Ombris*: by the way, we must not confound the celestial *Méru* with a mountain of the same appellation near *Câbul*, which the natives, according to the late Mr. *FORSTER*, still call *Mer-cub*, and the *Hindus*, who consider it as a splinter of the heavenly mountain, and suppose that the Gods occasionally descend on it, have named *Méru-franga*. Names are often

often so strangely corrupted, that we suspect Deo-naush to be also the *Scythian* monarch, called Tanaus by JUSTIN (*a*), and TAUNASIS by JORNANDES, who conquered *Aisa*, travelled into *Egypt*, and gave his name to the river otherwise called *Laxartes*, we have already mentioned *Nous* as a *Greek* name of the *Nile*, and the *Danube* or *Ister* was known also by that of *Danuus* or *Tanais* (*b*), in which points the *Purâna*s coincide with HORUS APOLLO, EUSTATHIUS, and STRABO.

X The author of the *Vîsha-prâcâr* gives an account of an extraordinary personage, named DARDA'NA'SA, who was lineally descended from the great JAMADAGNI. his father ABHAYA'NA's lived on the banks of the river *Vîashâ*, where he constantly performed acts of devotion, explained the *Vîdas* to a multitude of pupils, and was chosen by CHITRARAT'HA, who though a *Vaiyâ*, reigned in that country, as his *guru*, or spiritual guide. Young DARDA'NA'SA had free access to the secret apartments of the palace, where the daughter of the king became enamoured of him, and eloped with him through fear of detection, carrying away all the jewels and other wealth that she could collect. the lovers travelled from hill to hill and from forest to forest, until they reached the banks of the *Câli*, where their property secured them a happy retreat. PRAMÔDA, a virtuous and learned Brâhmañ of that country, had a beautiful daughter, named PRAMADA', whom DARDA'NA'SA, with the assent of the princess, took by the hand, that is married, according to the rites prescribed in the *Vîda*, and his amiable qualities gained him so many adherents, that he was at length chosen sovereign of the whole region, which he governed with mildness and wisdom. His ancestry and posterity are thus arranged.

(a) Lib. 1 Cap 1 and Lib. 2 Cap. 36

(b) *Egypt in Diogenes Perieg* v 298

JAMADAGNI,

Jámadagm,	Abbeyánás,
Práčbinás,	DARDA'NA'S,
Támránás,	Vannabrítlánás,
Nášbránás,	Téctnás,
Bbúnyánás,	Bbábánás,
Craubánás,	Tracáyanyás,
Abbeyojátanás,	Avadánás

The river, here named *Visafid*, and vulgarly *Jelam*, is the *Hydæpes* of the Greeks a nation, who lived on its banks, are called *Dardaners*, by DIONYSIUS (*a*), and the Greek *DARDANUS* was probably the same with *DARDA'NA'SA*, who travelled into *Egypt* with many associates. We find a race of *Trojans* in *Egypt*, a mountain, called anciently *Trocas*, and now *Tora*, fronted *Mempbis*, and at the foot of it was a place actually named *Troja*, near the *Nile*, supposed to have been an old settlement of *Trojans*, who had fled from the forces of *MENE-LAUS*, but *CRETIAS*, who is rather blameable for credulity than for want of veracity, and most of whose fables are to be found in the *Paráus*, was of a different opinion; for he asserted, according to DIODORUS OF SICILY, that *Troja* in *Egypt* was built by *Trojans*, who had come from *Affryia* under the famed *SEMIRAMIS* (*b*), named *SAM'RAMA'* by the ancient *Hinda* writers; and this account is confirmed by HERODOTUS, who says, that a race of *DARDANIANS* were settled on the banks of the river *Gyndes* near the *Tigris* (*c*), where, I imagine, *DARDA'NA'SA* and his associates first established themselves after their departure from *India* (*d*). EUSTATHIUS, in his comment on the *Periægisis*,

(*a*) *Perieg* v 11 38(*b*) *B* 2(*c*) *B* 1 *C* 189(*d*) *Ihad Y* v 215

distinguishes the *Dardanis* from the *Dardanos*, making the first an *Indian*, and the second a *Trojan*, race (*a*), but it seems probable, that both races had a common origin when HOMER gives the *Trojans* the title of *Meropians*, he alludes to their eastern origin from the borders of *Méru*, the very name of king *Merops* being no other than *M'ERUPA*, or sovereign of that mountainous region.

XI We come now to a person of a different character; not a prince or a hero, but a bard, whose life is thus described in the *Vibhūṣāṇa*. On the banks of the *Cālī* dwelt a *Brāhmaṇa*, whose name was *LI'C'HA'YAVA'S*, a sage rigorously devout, skilled in the learning of the *Vēdas*, and firmly attached to the worship of *Hera*, but, having no male issue, he was long disconsolate, and made certain oblations to the God, which proved acceptable, so that his wife *Sa'NCRITI* became pregnant, after she had tasted part of the *charu*, or cake of rice, which had been offered in due time she was delivered of a beautiful boy, whom the *Brāhmaṇa*, convened at the *jātacarma*, or ceremony on his birth, unanimously agreed to name *HERIOATTA*, or given by the divinity. When the *Janmācāra*, or institution of a *Brāhmaṇa*, was completed by his investiture with the sacred string, and the term of his studentship in the *Vēda* was past, his parents urged him to enter into the second order, or that of a married man, but he ran into the woods, and passed immediately into the fourth order, disclaiming all worldly connections and wholly devoting himself to *VISHNU* he continually practised the *Samādhyōga*, or union with the deity by contemplation,

(a) On *Δαρδανοῖς*, *Δαρδανοῖς*, in *μίτραι Δαρδανοῖς*, *Τρώισσαι*.

Zeylath on Diodor. v 11, 36

fixing his mind so intensely on God, that his vital soul seemed concentrated in the *Brahma-randras*, or pineal gland, while his animal faculties were suspended, but his body still uncorrupted, till the reflux of the spirits put them again in motion, a state, in which the Hindus assert, that some *Yogis* have remained for years, and the fanciful gradations of which are minutely described in the *Yoga-sástra*, and even delineated, in the figures called *Satchakra*, under the emblems of lotos-flowers with different numbers of petals, according to the supposed stations of the soul in her mystical ascent. From this habit of merging all his vital spirits in the idea of the supreme being, HEIDATTA was named LI'NA'SL, a name, which the people repeated with enthusiasm, and he became the *guru*, or spiritual director, of the whole nation. He then rambled over the earth, singing and dancing, like a man in a phrensy; but he sang no hymns, except those which himself had composed, and hence it came, that all older hymns were neglected, while those of LI'NA'SU alone were committed to memory from his lips, and acquired universal celebrity. Other particulars of his life are mentioned in the *Purácas*, where fragments of his poetry are, most probably, cited. I have no doubt, that he was the same person with the LINUS of the Greeks, and, if his hymns can be recovered, they will be curious at least, if not instructive. LI'NA'SU was the eighth in descent from the sage BHARAOWA'JA, whom some call the son of VRIHAS-PATI, or the regent of Jupiter. He is said to have married at an advanced age, by the special command of HERI, and five of his descendants are named in the following pedigree.

BHARAOWA'JA,
Cárishkáyanás,
Cjbámáyanás,

Lec'háyanas,
LI'NA'SU, or *Lénáyanás*,
Cahndáyanás, 10

Gaurruáyanás,

Gārttobhyanās,	Mājibhyanās,
Cārunāyanās,	Cāmacāyanās,
Bṛtrityāyanās,	Sānc'halāyanās,
Sūbbhyānās,	Cāsucāyanās.

XII The tale of LUBOHACA relates both to the morals and astronomy of the Hindus, and is constantly recited by the Brāhmens on the *mght* of SIVA, which falls on the fourteenth of Māgha or of P'bhālgun, according as the month begins from the opposition or from the conjunction

LUBOHACA was descended from the race of *Pahl*, and governed all the tribes of *Crātas*: he was violent and cruel, addicted passionately to the pleasures of the chase, killing innocent beasts without pity and eating their flesh without remorse. On the fourteenth lunar day of the dark half of P'bhālgun, he had found no game in the forest, and at sunset, faint with hunger, he roved along the banks of the Grijñā, still earnestly looking for some animal whom he might shoot: at the beginning of night he ascended a *Sīva*-tree, which is consecrated to MĀHA'DE'VA, whose emblem had been fixed under it near a spring of water, and, with a hope of discerning some beast through the branches, he tore off the leaves, which dropped on the *linga*, sprinkling it with dew, so that he performed sacred rites to the God, without intending any act of religion. In the first watch of the night a large male antelope came to the spring; and LUBOHACA, hearing the sound which he made in drinking, fixed his arrow, and took aim at the place, whence the noise proceeded; when the animal, being endued by SIVA with speech and intellect, told him, that he had made an assignation with a beloved female, and requested him to wait with patience till the next day, on which he promised to return: the mighty hunter was sof-

tened, and, though nearly famished, permitted the antelope to depart, having first exacted an oath, that he would perform his engagement. A female antelope, one of his consorts, came in the second watch to drink at the spring; who was in like manner allowed to escape, on her solemn promise, that she would return, when she had committed her helpless young to the care of a sister, and thus, in the third and fourth watches, two other females were released for a time on pretences nearly similar, and on similar promises. So many acts of tender benevolence in so trying a situation, and the rites to MA-HA'DI'VA, which accompanied them from watch to watch, though with a different intention, were pleasing to the God, who enlightened the mind of LUBDHACA, and raised in him serious thoughts on the cruelty of slaying the innocent for the gratification of his appetite. At early dawn he returned to his mansion, and, having told his family the adventure of the night, asked whether, if he should kill the antelopes, they would partake his guilt, but they disclaimed any share in it, and insisted, that, although it was his duty to provide them with sustenance, the punishment of sin must fall on him solely. The faithful and amiable beast at that moment approached him, with his three consorts and all his little ones, desiring to be the first victim, but LUBDHACA exclaimed, that he would never hurt his friend and his guide to the path of happiness, applauded them for their strict observance of their promises, and bade them return to the woods, into which he intimated a design of following them as a hermit. His words were no sooner uttered, than a celestial car descended with a messenger from SIVA, by whose order the royal convert and the whole family of antelopes were soon wafted, with radiant and incorruptible bodies, to the starry regions, fanned by heavenly nymphs, as they rose, and shaded by genu, who held umbrellas, while a chorus of ethereal songsters chanted the praises of tenderness to living creatures and a rigorous adherence

to

to truth. LUBDHACA was appointed regent of *Sirius*, which is called the *yoga star*; his body is chiefly in our Greater Dog, and his *arm* seems to extend from β in that asterism to κ in the knee of Orion, the three stars in whose neck are the lunar mansion *Mrigafiras*, or the head of the male antelope, who is represented looking round at the archer, the three stars in the belt are the females, and those in the sword, three young progeny; MAHA'DEVA, that he might be near his favourites, placed himself, it is said, in the next lunar mansion *Aśādha*, his head being the bright star in the shoulder of ORION, and his body including those in the arms with several smaller stars in the galaxy. The son of LUBDHACA succeeded him on earth, and his kingly descendants yet reign, says the author of the *Purāṇa*, on the delightful banks of the *Griñó*.

This legend proves a very material fact, that the *Pellis* and *Chácas* were originally the same people, it seems to indicate a reformation in some of the religious tenets and habits of the nations bordering on the *Griñó*, and the whole appears connected with the famous *Egyptian* period regulated by the heliacal rising of *Sirius* the river here mentioned I suppose to be the smaller *Griñó*, or the *Sirix* of the ancients, so named, as well as the province of *Siré*, from the word *Sir*, which means a dog, says Mr BAUCE, in the language of that country. The constellations of ORION and the two Dogs point at a similar story differently told; but the name of LUBDHACA seems changed by the Greeks into LABDACUS for since, like the ancient *Indians*, they applied to their new settlements the history and fables of their primitive country, they represent LABDACUS as the grandson of CADMUS, the son of POLYDORUS, (for so they were pleased to disguise the name) and the father of LAIUS now CADMUS, as we have shown, was CARDAMÉSWARA, or MAHA'DEVA, and PO-

LYDORUS, or POLYDOTUS, was PALLIDATTA, the gift of the national god *Pall*, or *Narrut*. As to LABDACUS, he died in the flower of his age, or disappeared, say the *Hindus*, and was translated into heaven, but, during his minority, the reins of government were held by LYCUS, a son of NYCTEUS, or NACTUN-CHARA he was succeeded by LAIUS, which, like *Pall*, means a *herdsman* or *shepherd*, for λαίς, λείς, and λιός, signify herds and flocks, and thus we find a certain LAIUS, who had a son BUCOLION, and a grandson PHIALUS, both which names have a reference to *pasture*, for the Shepherds were called by the Greeks Αγελαιοί, and AOELAIA was synonymous with PALLAS. The son of LAIUS was OEDIPUS, with whose dreadful misfortune, as we intimated in the first section, the Hindus are not unacquainted, though they mention his undesigned incest in a different manner, and say, that YOGABRASHTA, whom they describe as a flagitious woman, entered into the service of some cowherds, after the miserable death of her son MARA'SU'RA, or the Great Hero, by LINASU, the son of LUDHACA, who was descended from PALLI the whole story seems to have been Egyptian, though transferred by the Greeks to Thebes in their own country.

XIII The last piece of history, mixed with an astrological fable, which I think it useful to add, because it relates to *Barbara*, is the legend of DA'SARAT'HA, or the monarch, *whose car had borne him to ten regions*, or to the eight points, the zenith, and the nadir it is told both in the *Bhawisbye Purān* and the *Brāhmānda* He was descended from SU'RYA, or HE'LII, which is a name of the Sun in Greek and in *Sanskrit* one of his ancestors, the great RAOHU, had conquered the seven *dwipas*, or the whole earth, and VISHNU became incarnate in the person of his son RA'MACHANORA. It happened in the reign of DASARAT'HA, that SANI, having just left the lunar mansion *Critica*, or the Pleiads, was entering the Hyades, which the Hindus call *Rābind*, and that passage

of SATURN is distinguished by the appellation of *Sacata-bbida*, or the *father of the world*—an universal drought having reduced the country to the deepest distress, and a total depopulation of it being apprehended, the king summoned all his astrologers and philosophers, who ascribed it solely to the unfortunate passage of the malignant planet, and VASISHT'HA added, that, unless the monarch himself would attack SANI, as he strongly advised, neither INDRA nor BRAHMA himself could prevent the continuance of the drought for twelve years DASARAT'HA that instant ascended his miraculous car of pure gold, and placed himself at the entrance of *Rōbni*, blazing like his progeitor the Sun, and drawing his bow, armed with the tremendous arrow *Sahbárástra*, which attracts all things with irresistible violence SANI, the slow-moving child of SU'RYA, dressed in a blue robe, crowned with a diadem, having four arms, holding a bow, a spiked weapon, and a cimeter, (thus he is described in one verse) discerned his formidable opponent from the last degree of *Gr̄ītičā*, and rapidly descended into the land of *Barbara*, which burst into a flame, while he concealed himself far under ground The hero followed him, and his legions, marching to his assistance, perished in the burning fano, but SANI was attracted by the magnetick force of the *Sanbarástra*, and, after a vehement conflict, was overpowered by DASARAT'HA, who compelled him to promise, that he never more would attempt to pass through the wain of *Rōbni*—the victor then returned to his palace, and the regent of the planet went to SANI-*B'bán* in *Barbara*, while the ground, on which he had fought, assumed a red hue The Hindu astrologers say, that SANI has hitherto performed his promise, but that, in four or five years, he will approach so nearly to *Rōbni*, that great mischief may be feared from so noxious a planet, who has nothing in this age to apprehend from a hero in a self-moving car with an irresistible weapon they add, that MANGALA, or *Mars*, the child of PRIT'HIVI, has also been prevented

vented from traversing the waggon of Réam, but that VRIHASPATI, SUCRA, and BUDDHA, or Jupiter, Venus, and Mercury, pass it freely and innocently, while it is the constant path of SÓMA, or the Moon, of whom the beautiful Réam, or Aldebarán, is the favourite comfort.

The history of DÁSARAT'S being immediately connected with that of RA'-MACHANDRA, and consequently of the first castors, who settled in India, it may properly conclude this third section, which has been confined to the de-migods and sages, who distinguished themselves in the countries bordering on the Nile of Ethiopia, and, whatever may be thought of some etymological conjectures, which I have generally confirmed by facts and circumstances, it has been proved, I trust, by positive evidence, that the ancient Indians were acquainted with those countries, with the course of that celebrated river, and with *Misra*, or Egypt.

REMARKS

R E M A R K S

ON THE PRECEDING ESSAY

BY THE PRESIDENT

SINCE I am persuaded, gentlemen, that the learned Essay on *Egypt* and the *Nile*, which you have just attentively heard, has afforded you equal delight with that, which I have myself received from it, I cannot refrain from endeavouring to increase your satisfaction, by confessing openly, that I have at length abandoned the greatest part of that natural distrust and incredulity, which had taken possession of my mind, before I had examined the sources, from which our excellent associate Lieutenant WILFORD has drawn so great a variety of new and interesting opinions. Having lately read again and again, both alone and with a *Pandit*, the numerous original passages in the *Purána*s, and other *Sanskrit* books, which the writer of the dissertation adduces in support of his assertions, I am happy in bearing testimony to his perfect good faith and general accuracy both in his extracts and in the translations of them, nor should I decline the trouble of annexing literal versions of them all, if our third volume were not already filled with a sufficient store of curious, and (my own part being excepted) of valuable, papers there are two, however, of Mr WILFORD's extracts from the *Purána*s, which deserve a verbal translation, and I, therefore, exhibit them word for word, with a full conviction of their genuineness and antiquity.

The first of them is a little poem, in the form of the hymns ascribed to ORPHEUS, in praise of the *Nilá*, which all the Bráhmens allow to be a sacred river in *Cybera-dwip*, and which we may confidently pronounce to be the *Nile* it is taken from the *Scanda-purán*, and supposed to be the composition

of VISVA'MITRA, the father of SACONTALA, with whose life you are well acquainted.'

1. " *Cáñi*, *Griñá*, likewise *Níla*; *Syamá*, *Cálá*, and *Ajita* also, *Anya-nábbá* and *'Syámála*, *Méchacá* too and *Páváni*;

2. " *Agbábi* and *Micbádá* — these twelve prosperous names of the *Cáñi*,
" in whatever receptacle of water

3 " A man shall repeat at the time of bathing, he shall gain the fruit of
" an ablution in the *Cáñi*. No stream on earth is equal to the river *Cáñi* as
" a giver of increase to virtue.

4. " He, who has bathed in her *stream*, is wholly released from the mur-
" der of a *Bráhma* and every other crime. they, who have been of-
" fenders in the highest degree, are purified by her, and consequently they,
" who have committed rather inferior sins

5 " They, who have arrived on the bank of the river *Cáñi*, are indubi-
" tably released from sin, and even by a sight of the river *Cáñi*, an assem-
" blage of crimes is quite effaced,

6 " But to declare the fruit gained by bathing in her *waters*, is impossible
" even for BRAHMA! These delightful and exquisite names whatever men

7. " Shall repeat, even they are *considered as* duly bathed in the river
" *Cáñi* constantly, therefore, must they be repeated with all *possible* attention."

Here I must observe, that the couplets of the *Veda*, which our learned friend has quoted at the beginning of his Essay, are in a similar strain to those of VISVA'MITRA, nor have I a doubt of their authenticity, because the fifth line is clearly in a very ancient dialect, and the original ends in the manner of the Hindu Scripture, with a repetition of the two last words, but, either we must reject a redundant syllable in the concluding verse, (though such a redundancy often occurs in the *Veda*) or we must give a different version of it. The line is

Sutāstasamāyogāt param yāti nānvertatē,

which may thus be rendered "By whose union of white and dark azure
" waters, a mortal, who bathes in them, attains the Most High, from whose
" presence he returns not to this terrestrial mansion"

Of the second passage, from the *Padma-purāṇ*, the following translation is minutely exact

1 " To SATYAVARMAN, that sovereign of the whole earth, were born
" three sons, the eldest, SHBRA, then, C'HARMA and, thirdly, JY'PETI
" by name

2 " They were all men of good morals, excellent in virtue and virtuous
" deeds, skilled in the use of weapons to strike with or to be thrown, brave
" men, eager for victory in battle

3 " But SATYAVARMAN, being continually delighted with devout me-
" ditation, and seeing his sons fit for dominion, laid upon them the burden of
" government,

4 " *Whilst* He remained honouring and satisfying the Gods, and priests, and
" kine One day by the act of destiny, the king, having drunk mead,

5 " Became senseless and lay asleep naked then was he seen by C'HAR-
" MA, and by him were his two brothers called,

6 " *To whom be said* What now has befallen? In what state is thus
" our sire? By those two was he hidden with clothes, and called to his senses
" again and again

7 " Having recovered his intellect, and perfectly knowing what had
" passed, he cursed C'HARMA, *saying* Thou shalt be the servant of servants;

8 " *And*, since thou wast a laughter in their presence, from laughter shalt thou
" acquire a name Then he gave to SHERMA the wide domain on the south of
" the snowy mountain,

9 " And to JYA'PETS he gave all on the north of the snowy mountain, but
" He, by the power of religious contemplation, attained supreme bliss"

Now you will probably think, that even the conciseness and simplicity of this narrative are excelled by the *Mofack* relation of the same adventure, but, whatever may be our opinion of the old *Indian* style, this extract most clearly proves, that the SATYAVRATA, or SATYAVARMAN, of the *Purâns* was the same personage (as it has been asserted in a former publication) with the Noah of Scripture, and we consequently fix the utmost limit of *Hindu Chronology*, nor can it be with reason inferred from the identity of the stories, that the divine legislator borrowed

borrowed any part of his work from the *Egyptians*: he was deeply versed, no doubt, in all their learning, such as it was, but he wrote what he knew to be truth itself, independently of their tales, in which truth was blended with fables; and their age was not so remote from the days of the Patriarch, but that every occurrence in his life might naturally have been preserved by traditions from father to son.

We may now be assured, that the old *Hindus* had a knowledge of *Mis* and of the *Nile*, that the legends of CEPHEUS and CASSIOPIA (to select one example out of many) were the same with those of CAPE'YA and CA'SYAPI, that PERSEUS and ANOROMEDA were no other than PA'RASICA and ANTARMADA', and that Lord BACON, whom, with all his faults (and grievous faults they were), we may justly call the great architect of the temple of knowledge, concluded rightly, that the Mythology of the Greeks, which their oldest writers do not pretend to have invented, was no more than a light air, which had passed from a more ancient people into the flutes of the Grecians, and which they modulated into such descants as best suited their fancies and the state of their new settlements, but we must ever attend to the distinction between *evidence* and *conjecture*, and I am not yet fully satisfied with many parts of Mr WILLIAMS's Essay, which are founded on so uncertain a basis as *conjectural Etymology*, though I readily admit, that his etymologies are always ingenious, often plausible, and may hereafter, perhaps, be confirmed by historical proof. Let me conclude these remarks with applying to Him the words of the memorable writer, whom I have just named, and with expressing an opinion, in which I have no doubt of your concurrence, "That, with persevering industry, and with scrupulous attention to genealogies, monuments, inscriptions, names and titles, derivations of words, traditions and archives, fragments of history, and scattered passages from rare books on very different subjects,

“ he has preserved a venerable *tablet from the shipwreck of time*; a work, open
“ rose and painful to the author, but extremely delightful to his readers, and
“ highly deserving their grateful acknowledgements.”

DESCRIPTION OF THE PLANT BUTEA.

By Dr ROXBURGH

I **T**HIE *Maduga* of the *Gentoos*, and *Plafo* of the *Horbus Malabaricus*,* is a middle sized, or rather a large, tree, not very common on the low-lands of this coast, but much more so up amongst the mountains it casts its leaves during the cold season, they come out again with the flowers about the months of *March* and *April*, and the seed is ripe in *June* or *July*

TRUNK irregular, generally a little crooked, covered with ash-coloured, spongy, thick, slightly scabrous bark, the middle strata of which contain a red juice hereafter to be mentioned

BRANCHES very irregularly bent in various directions, young shoots downy

LEAVES alternate, spreading, three'd, from eight to sixteen inches long Leaflets emarginated, or rounded at the apex, leathery, above shining and pretty smooth, below slightly hoary, entire the pair are obliquely oval from four to seven inches long, and from three to four and a half broad, the exterior one inverse hearted, or, in other words, transversely oval, and considerably larger than the lateral

Common Petiole round, when young, downy, the length of the leaflets

Stipules of the Petiole small, recurved, downy

— of the Leaflets awl'd

* The BUTEA *Fondia* of KOENIG.

RACEME terminal, axillary, and form tuberofities over the naked woody branchlets, standing in every direction, rigid, covered with a soft greenish purple down

FLOWERS *Papilionaceous*, pendulous, pedicelled, fascicled, large, their ground of a beautiful deep red, shaded with orange and silver coloured down, which gives them a most elegant appearance.

PEDICELS round, about an inch long, articulated near the apex, and covered with the same greenish velvetlike down

BRACKTS, one below the inferson of each pedicel, lanced, falling, two similar but smaller, pressing on the Calyx, falling also

CALYX *Perianth* bellied, leathery, two lipped, upper lip large, scarce emarginated, under three toothed, covered with the same dark green down, that the raceme and pedicels are covered with, withering

COROL

Banner reflected, egged, pointed, very little longer than the wings

Wings ascending, lanced, the length of the keel

Keel below two parted, ascending, large, mooned, the length of the wings and banner.

STAMENS filaments one and nine, ascending in a regular semicircle, about as long as the corol

Anthers equal, linear, erect

PISTIL

PISTIL *Germ* short, thick, pedicelled, lanced, downy

Style ascending, a little larger than the filaments.

Stigma small, glandulous

PERICARP, *legume* pedicelled, large, pendulous, all, but the apex where the seed is lodged, leafy, downy, about six inches long by two broad, never opening of itself

SEE one, lodged at the point of the legume, oval, much compressed, smooth, brown, from an inch and a quarter to an inch and a half long and about one broad

From natural fissures, and wounds made in the bark of this tree, during the hot season, there issues a most beautiful red juice, which soon hardens into a ruby-coloured brittle astringent gum but it soon loses its beautiful colour, if exposed to the air to preserve the colour, it must be gathered as soon as it becomes hard, and kept closely corked up in a bottle

This gum, held in a flame of a candle, swells and burns away slowly, with out smell or the least flame, into a coal, and then into fine light white ashes held in the mouth it soon dissolves, it tastes strongly, but simply, astringent, heat does not soften it, but rather renders it more brittle, pure water dissolves it perfectly the solution is of a deep red colour, it is in a great measure soluble in spirits, but this solution is paler, and a little turbid, the watery solution also becomes turbid when spirit is added, and the spirituous more clear by the addition of water, diluted vitriolic acid renders both solutions turbid, mild caustic vegetable alkali changes the colour of the watery solution to a clear deep

deep fiery red * the spirituous it also deepens, but in a less degree *Sal Martis* changes the watery solution into a good durable ink.

These are, I think, proofs, that a very small proportion of resin is present in this substance - in this it differs essentially from the gum resin called *Kino*, or *Gummi rubrum astringens*, which the *Edinburgh* college has taken into their *materia medica* (I have used the recent gum in making my experiments, which may make some difference), but as this can be most perfectly dissolved in watery menstrua, it may prove of use, where a spirituous solution of the former (being the most complete) cannot be so properly administered, consequently it may prove a valuable acquisition also

Infusions of the flowers, either fresh or dried, dyed cotton cloth, previously impregnated with a solution of alum or alum and tartar, of a most beautiful bright yellow, which was more or less deep according to the strength of the infusion a little alkali added to the infusion changes it to a deep reddish orange, it then dyed unprepared cotton cloth of the same colour, which the least acid changes to a yellow or lemon these beautiful colours I have not been able to render perfectly permanent

Amongst numberless experiments, I expressed a quantity of the juice of the fresh flowers, which was diluted with alum water, and rendered perfectly clear by depuration it was then evaporated by the heat of the sun, into a soft extract, this proves a brighter water-colour than any gamboge I have met with, it is one year since I first used it, and it remains bright

* With an alkalized decoction of this gum, I tried to dye cotton cloth prepared with alum, with sugar of lead, and with a solution of tin in *squa regia*, but the reds produced thereby were bad that where alum was employ'd, was the best.

Infusions of the dried flowers yielded me an extract very little, if any thing, inferior to this last mentioned, they yield also a very fine durable yellow lake and all these in a very large proportion.

The *Lac* insects are frequently found on the small branches and the petioles of the leaves of this tree whether the natural juices of its bark contribute to improve the colour of their red colouring matter, I cannot say it would require a set of experiments accurately made on specimens of lac gathered from the various trees it is found on, at the same time and as nearly as possible from the same place, to determine this point

I do not find, that the natives make any use of the gum or flowers, although they promise to be valuable, the former as a medicine, and the latter as a pigment and dying drug.

II BUTEA SUPERBA,* *Tiga Maduga* of the *Gentoos*, is a very large twining shrub, a native of the mountains Flowering time, the beginning of the hot season

ROOT spindle-form, very large

STEM twining, as thick as, or thicker than, a man's leg, woody, very long, running over large trees Bark, ash-coloured, pretty smooth

BRANCHES like the stem, but small, and with a smoother bark

LEAVES alternate, threeed, remote, very large.

* So named by Dr ROXBURGH

LEAFLETS downy, in other respects as in *Butea Frondosa*, but greatly larger - the exterior one is generally about twenty inches long, and broad in proportion, the lateral somewhat less.

RACEMES as in the former, but much larger

FLOWERS also the same, only much larger and more numerous

CALYX divided as the other, but the divisions longer and much more pointed

COROL the same

LEGUMES and Seed as in the former, but rather larger

When this species is in full flower, I do not think the vegetable world offers a more gaudy show - the flowers are incomparably beautiful, very large and very numerous, the colours are so exceedingly vivid, that my best painter has not been able, with his utmost skill, to come any thing like near their brightness

From fissures, &c in the bark, the same sort of ruby-coloured astringent gum exudes - the flowers also yield the same beautiful yellow dye and pigment

Dr ROXBURGH's Description of the *NEELUM Tiffornum* would have been subjoined, but the publication of it is delayed, until the Society have been favoured with the result of his farther experiments

ON THE MANUFACTURE OF INDIGO AT AMBORE.

BY LIEUTENANT COLONEL CLAUDE MARTIN

I PRESENT the Society with a short description of the process observed in the culture and manufacture of Indigo in this part of *India*. The *Ambore* district is comprised within a range of surrounding hills of a moderate height the river *Palar*, declining from its apparent southerly direction, enters this district about three miles from the eastward, washes the *Ambore Pettah*, a small neat village, distant three miles to the southward of the fort of that name, situated in a beautiful valley, the skirts of the hills covered with the *Palmeira* and *Date* trees, from the produce of which a considerable quantity of coarse sugar is made, this tract is fertilized by numerous rills of water conducted from the river along the margin of the heights and throughout the intermediate extent. this element being conveyed in these artificial canals (three feet deep), affording a pure and crystal current of excellent water for the supply of the Rice-fields, Tobacco, Mango, and Cocoanut, plantations, the highest situated lands affording Indigo, apparently without any artificial watering, and attaining maturity at this season notwithstanding the intense heat, the thermometer under cover of a tent rising to 100, and out of it to 120, the plant affording even in the driest spots good foliage, although more luxuriant in moister situations I am just returned from examining the manufacture of this article First, the plant is boiled in earthen pots of about eighteen inches diameter, disposed on the ground in excavated ranges, from twenty to thirty feet long, and one broad, according to the number used. When the boiling process has

extracted all the colouring matter ascertainable by the colour exhibited, the extract is immediately poured into an adjoining small jar fixed in the ground for its reception, and is thence laded in small pots into larger jars disposed on adjoining higher ground, being first filtered through a cloth, the jar, when three-fourths full, is agitated with a split bamboo extended into a circle, of a diameter from thirteen to twenty inches, the hoop twisted with a sort of coarse straw, with which the manufacturer proceeds to beat or agitate the extract, until a granulation of the fecula takes place, the operation continuing nearly for the space of three-fourths of an hour, a precipitant composed of red earth and water, in the quantity of four quart bottles, is poured into the jar, which after mixture is allowed to stand the whole night, and in the morning the superincumbent fluid is drawn off through three or four apertures practised in the side of the jar in a vertical direction, the lowest reaching to within five inches of the bottom, sufficient to retain the fecula which is carried to the houses and dried in bags.

This is the whole of the process recurred to in this part, which, I think, if adopted in *Bengal*, might in no small degree supersede the necessity of raising great and expensive buildings, in a word, save the expenditure of so much money in dead stock, before they can make any Indigo in the *European* method, to which I have to add, that Indigo thus obtained possesses a very fine quality.

As I think these observations may be useful to the manufacturers in *Bengal*, I could wish to see them printed in the *Transactions of the Asiatic Society*

Ambore,
2d April, 1791

EXTRACT OF A TREATISE

OR THE

MANUFACTURE OF INDIGO,

BY MR. DE COSSIGNY

" THIS experiment (the *Indian* process) infallibly shows, that Indigo may
 " be produced by different methods, and how much it is to be re-
 " gretted that the *European* artists should remain constantly wedded to their
 " method or routine, without having yet made the necessary inquiries towards
 " attaining perfection. Many travellers on the coast of *Cormandel* having been
 " struck with the apparent simplicity of the means used by the *Indians* in
 " preparing Indigo, from having seen their artists employed in the open air with
 " only earthen jars, and from not having duly examined and weighed the ex-
 " tent of the detail of their process, apprehended that it is effected by easier
 " means than with the large vats of masonry and the machinery employed by
 " *Europeans* but they have been greatly mistaken, the whole appearing a de-
 " lusive conclusion from the following observation, viz that one man can, in
 " the *European* method of manufacture, bring to issue one vat containing fifty
 " bundles of plant, which, according to their nature and quality, may afford
 " from ten to thirty pounds of Indigo, whereas, by the *Indian* process, one
 " employed during the same time would probably only produce one pound
 " of Indigo the *European* method is therefore the most simple, as well as every
 " art where machinery is used instead of manual labour "

NOTE

Experience alone must decide between the opposite opinions of Colonel MARTIN and
 M. de COSSIGNY

XVI.

DISCOURSE THE NINTH

ON THE

ORIGIN AND FAMILIES OF NATIONS

DELIVERED 23 FEBRUARY, 1792.

BY THE PRESIDENT

YOU have attended, gentlemen, with so much indulgence to my discourses on the five *Afghan* nations, and on the various tribes established along their several borders or interspersed over their mountains, that I cannot but flatter myself with an assurance of being heard with equal attention, while I trace to one centre the three great families, from which those nations appear to have proceeded, and then hazard a few conjectures on the different courses, which they may be supposed to have taken toward the countries, in which we find them settled at the dawn of all genuine history.

Let us begin with a short review of the propositions, to which we have gradually been led, and separate such as are morally certain, from such as are only probable that the first race of *Perians* and *Indians*, to whom we may add the *Romans* and *Greeks*, the *Goths*, and the old *Egyptians* or *Ethiops*, originally spoke the same language and professed the same popular faith, is capable, in my humble opinion, of incontestable proof, that the *Jews* and *Arabs*, the *Affyrians*, or second *Perian*

Perſian race, the people who spoke *Syriack*, and a numerouſe tribe of *Aryffimani*, uſed one primitive dialect wholly diſtinct from the idiom just mentioned, is, I believe, undisputed, and, I am ſure, indisputable, but that the settlers in *China* and *Japan* had a common origin with the *Hindus*, is no more than highly probable, and, that all the *Tartars*, as they are inaccurately called, were primarily of a third ſeparate branch, totally diſſering from the two others in language, manners, and features, may indeed be plauſibly conjectured, but cannot, from the reaſons alledged in a former eſſay, be perſpicuously ſhown, and for the preſent, therefore, muſt be merely aſſumed. Could these facts be verified by the beſt attainable evidence, it would not, I presume, be doubted, that the whole earth was peopled by a vaſtety of ſhoots from the *Indian*, *Arabian*, and *Tartarian* branches, or by ſuch intermixtures of them, as, in a courſe of ages, might naturally have happened.

Now I admit without hesitation the aphorism of *LINNAEUS*, that, "in the beginning God created one pair only of every living ſpecies, which has a diversity of *sex*," but, ſince that incomparable naturaliſt argues principally from the wonderful diſſuſion of vegetables, and from an hypothesis, that the water on this globe has been conſtinually ſubſiding, I venture to produce a ſhorter and cloſer argument in ſuport of his doctrine. That *Nature*, of which ſimplicity appears a diſtinguiſhing attribute, does nothing in vain, is a maxim in philosophy, and againſt thoſe, who deny maxims, we cannot diſpute, but it is vain and ſuperfluous to do by many means, what may be done by fewer, and this is another axiom received into courts of judicature from the ſchools of philosophers we muſt not, therefore, ſays our great *NEWTON*, admit more cauſes of natural things, than thoſe which are true, and ſufficiently account for natural phenomena, but it is true, that one pair at leaſt of every living ſpecies muſt

at

at first have been created; and that one human pair was sufficient for the population of our globe in a period of no considerable length, (on the very moderate supposition of lawyers and political arithmeticians, that every pair of ancestors left on an average two children, and each of them two more) is evident from the rapid increase of numbers in geometrical progression, so well known to those, who have ever taken the trouble to sum a series of as many terms, as they suppose generations of men in two or three thousand years. It follows, that the Author of Nature (for all nature proclaims its divine Author) created but one pair of our species, yet, had it not been (among other reasons) for the devastations, which history has recorded, of water and fire, wars, famine, and pestilence, this earth would not now have had room for its multiplied inhabitants. If the human race then be, as we may confidently assume, of one natural species, they must all have proceeded from one pair, and if perfect justice be, as it is most indubitably, an essential attribute of GOD, that pair must have been gifted with sufficient wisdom and strength to be virtuous, and, as far as their nature admitted, happy, but intrusted with freedom of will to be vicious and consequently degraded. whatever might be their option, they must people in time the region where they first were established, and their numerous descendants must necessarily seek new countries, as inclination might prompt, or accident lead, them, they would of course migrate in separate families and clans, which, forgetting by degrees the language of their common progenitor, would form new dialects to convey new ideas, both simple and complex, natural affection would unite them at first, and a sense of reciprocal utility, the great and only cement of social union in the absence of publick honour and justice, for which in evil times it is a general substitute, would combine them at length in communities more or less regular, laws would be proposed by a part of each community, but enacted by the whole; and governments would be variously

arranged for the happiness or misery of the governed, according to their own virtue and wisdom, or depravity and folly; so that, in less than three thousand years, the world would exhibit the same appearances, which we may actually observe on it in the age of the great *Arabian* impostor.

On that part of it, to which our united researches are generally confined, we see *five* races of men peculiarly distinguished, in the time of MUHAMMED, for their multitude and extent of dominion; but we have reduced them to *three*, because we can discover no more, that essentially differ in language, religion, manners, and other known characteristicks now these three races, how variously soever they may at present be dispersed and intermixed, must (if the preceding conclusions be justly drawn) have migrated originally from a central country, to find which is the problem propofed for solution Suppose it solved, and give any arbitrary name to that centre. let it, if you please, be *Iran*. The three primitive languages, therefore, must at first have been concentrated to *Iran*, and there only in fact we see traces of them in the earliest historical age, but, for the sake of greater precision, conceive the whole empire of *Iran* with all its mountains and valleys, plains and rivers, to be every way infinitely diminished, the first winding courses, therefore, of all the nations proceeding from it by land and nearly at the same time, will be little right lines, but without intersections, because those courses could not have thwarted and crossed one another if then you consider the seats of all the migrating nations as points in a surrounding figure, you will perceive, that the several rays, diverging from *Iran*, may be drawn to them without any intersection; but this will not happen, if you assume as a centre *Arabia*, or *Egypt*; *India*, *Tartary*, or *China* it follows, that *Iran*, or *Persia* (I contend for the meaning, not the name) was the central country, which we sought. This mode of reasoning I have adopted, not from

from any affection (as you will do me the justice to believe) of a scientifick fiction, but for the sake of conciseness and variety, and from a wish to avoid repetitions; the substance of my argument having been detailed in a different form at the close of another discourse; nor does the argument in any form rise to demonstration, which the question by no means admits. It amounts, however, to such a proof, grounded on written evidence and credible testimony, as all mankind hold sufficient for decisions affecting property, freedom, and life.

Thus then have we proved, that the inhabitants of *Asia*, and consequently as it might be proved, of the whole earth, sprang from three branches of one stem and that those branches have shot into their present state of luxuriance, in a period comparatively short, is apparent from a fact universally acknowledged, that we find no certain monument, or even probable tradition, of nations planted, empires and states raised, laws enacted, cities built, navigation improved, commerce encouraged, arts invented, or letters contrived, above twelve or at most fifteen or sixteen centunes before the birth of CHRIST, and from another fact, which cannot be controverted, that even hundred or a thousand years would have been fully adequate to the supposed propagation, diffusion, and establishment of the human race.

The most ancient history of that race, and the oldest composition perhaps in the world, is a work in *Hebrew*, which we may suppose at first, for the sake of our argument, to have no higher authority than any other work of equal antiquity, that the researches of the curious had accidentally brought to light. It is ascribed to *MUSAH*, for so he writes his own name, which, after the *Greeks* and *Romans*, we have changed into *Moses*, and, though it was manifestly his object to give an historical account of a single family, he has introduced it

with a short view of the primitive world, and his introduction has been divided, perhaps improperly, into seven chapters. After describing with awful sublimity the creation of this universe, he asserts, that one pair of every animal species was called from nothing into existence; that the human pair were strong enough to be happy, but free to be miserable; that, from delusion and temerity, they disobeyed their supreme benefactor, whose goodness could not pardon them consistently with his justice, and that they received a punishment adequate to their disobedience, but softened by a mysterious promise to be accomplished in their descendants. We cannot but believe, on the supposition just made of a history uninspired, that these facts were delivered by tradition from the first pair, and related by Moses in a figurative style, not in that sort of allegory, which rhetoricians describe as a mere assemblage of metaphors, but in the symbolical mode of writing adopted by eastern sages, to embellish and dignify historical truth, and, if this were a time for such illustrations, we might produce the same account of the *creation* and the *fall*, expressed by symbols very nearly similar, from the *Purâna*s themselves, and even from the *Veda*, which appears to stand next in antiquity to the five books of Moses.

The sketch of antediluvian history, in which we find many dark passages, is followed by the narrative of a *deluge*, which destroyed the whole race of man, except four pairs, an historical fact admitted as true by every nation, to whose literature we have access, and particularly by the ancient Hindus, who have allotted an entire *Purâna* to the detail of that event, which they relate, as usual, in symbols or allegories. I concur most heartily with those, who insist, that, in proportion as any fact mentioned in history seems repugnant to the course of nature, or, in one word, miraculous, the stronger evidence is required to induce a rational belief of it, but we hear without incredulity, that cities have been

been overwhelmed by eruptions from burning mountains, territories laid waste by hurricanes, and whole islands depopulated by earthquakes if then we look at the firmament sprinkled with innumerable stars; if we conclude by a fair analogy, that every star is a sun, attracting, like ours, a system of inhabited planets, and if our ardent fancy, soaring hand in hand with sound reason, wait us beyond the visible sphere into regions of immensity, disclosing other celestial expanses and other systems of suns and worlds on all sides without number or end, we cannot but consider the submersion of our little spheroid as an infinitely less event in respect of the immeasurable universe, than the destruction of a city or an isle in respect of this habitable globe. Let a general flood, however, be supposed improbable, in proportion to the magnitude of so ruinous an event, yet the concurrent evidences of it are completely adequate to the supposed improbability; but, as we cannot here expatiate on those proofs, we proceed to the fourth important fact recorded in the *Mosaic history*, I mean the first propagation and early dispersion of mankind in *separate families* to separate places of residence

Three sons of the just and virtuous man, whose lineage was preserved from the general inundation, travelled, we are told, as they began to multiply, in three large divisions variously subdivided the children of YA'FET seem, from the traces of *Sklavonian* names, and the mention of their being enlarged, to have spread themselves far and wide, and to have produced the race, which, for want of a correct appellation, we call *Tartorian*; the colonies, formed by the sons of HAM and SHEM, appear to have been nearly simultaneous, and, among those of the latter branch, we find so many names uncontestedly preserved at this hour in *Arabs*, that we cannot hesitate in pronouncing them the same people, whom hitherto we have denominated *Arabs*; while the former branch, the most

most powerful and adventurous of whom were the progeny of *CUSH*, *MISH*, and *RAMA*, (names remaining unchanged in *Sayfus*, and highly revered by the *Hindus*) were, in all probability, the race, which I call *Indian*, and to which we may now give any other name, that may seem more proper and comprehensive.

The general introduction to the *Jewish* history closes with a very concise and obscure account of a presumptuous and mad attempt, by a particular colony, to build a splendid city and raise a fabric of immense height, independently of the divine aid, and, it should seem, in defiance of the divine power; a project, which was baffled by means appearing at first view inadequate to the purpose, but ending in violent dissension among the projectors and in the ultimate separation of them. This event also seems to be recorded by the ancient *Hindus* in two of their *Puráns*, and it will be proved, I trust, on some future occasion, that the lion bursting from a pillar to destroy a blaspheming giant, and the dwarf, who beguiled and held in derision the magnificent *Bali*, are one and the same story related in a symbolical style.

Now these primeval events are described as having happened between the *Oxus* and *Euphrates*, the mountains of *Caucasus* and the borders of *India*, that is, within the limits of *Iran*, for, though most of the *Mosaic* names have been considerably altered, yet numbers of them remain unchanged - we still find *Harrán* in *Mesopotamia*, and travellers appear unanimous in fixing the site of ancient *Babel*.

Thus, on the preceding supposition, that the first eleven chapters of the book, which is thought proper to call *Genesis*, are merely a preface to the oldest civil history now extant, we see the truth of them confirmed by antecedent reasoning, and

and by evidence in part highly probable, and in part certain; but the *connection* of the *Mosaic* history with that of the Gospel by a chain of sublime predictions unquestionably ancient, and apparently fulfilled, must induce us to think the *Hebrew* narrative more than human in its origin, and consequently true in every substantial part of it, though possibly expressed in figurative language, as many learned and pious men have believed, and as the most pious may believe without injury, and perhaps with advantage, to the cause of revealed religion. If Moses then was endued with supernatural knowledge, it is no longer probable only, but absolutely certain, that the whole race of man proceeded from *Iran*, as from a centre, whence they migrated at first in three great colonies, and that those three branches grew from a common stock, which had been miraculously preserved in a general convulsion and inundation of this globe.

Having arrived by a different path at the same conclusion with Mr. BRYANT as to one of those families, the most ingenious and enterprizing of the three, but arrogant, cruel, and idolatrous, which we both conclude to be various shoots from the *Haman* or *Amenian* branch, I shall add but little to my former observations on his profound and agreeable work, which I have thence perused with increased attention and pleasure, though not with perfect acquiescence in the other less important parts of his plausible system. The sum of his argument seems reducible to three heads. First; "if the deluge really happened at the time recorded by Moses, those nations, whose monuments are preserved or whose writings are accessible, must have retained memorials of an event so stupendous and comparatively so recent, but in fact they have retained such memorials" this reasoning seems just, and the fact is true beyond controversy. Secondly, "those memorials were expressed by the race of HAM," "before

" before the use of letters, in rude sculpture or painting, and mostly in symbolic figures of the ark, the eight persons concealed in it, and the birds, which first were dismissed from it: this fact is probable, but, I think, not sufficiently ascertained." Thirdly: " all ancient Mythology (except what was purely Sathan) had its primary source in those various symbols misunderstood, so that ancient Mythology stands now in the place of symbolical sculpture or painting, and must be explained on the same principles, on which we should begin to decypher the originals, if they now existed." This part of the system is, in my opinion, carried too far; nor can I persuade myself, (to give one instance out of many) that the beautiful allegory of CUPID and PSYCHE had the remotest allusion to the deluge, or that HYMEN signified the veil, which covered the patriarch and his family. These propositions, however, are supported with great ingenuity and solid erudition, but, unprofitably for the argument, and unfortunately, perhaps, for the fame of the work itself, recourse is had to etymological conjecture, than which no mode of reasoning is in general weaker or more delusive. He, who professes to derive the words of any one language from those of another, must expose himself to the danger of perpetual errors, unless he be perfectly acquainted with both, yet my respectable friend, though eminently skilled in the idioms of *Greece* and *Rome*, has no sort of acquaintance with any *Asiatick* dialect, except *Hebrew*, and he has consequently made mistakes, which every learner of *Arabick* and *Persian* must instantly detect. Among fifty radical words (*ma*, *tah*, and *raw* being included) eighteen are purely of *Arabian* origin, twelve merely *Indian*, and seventeen both *Sanscrit* and *Arabick*, but in senses totally different, while two are *Greek* only, and one *Egyptian*, or barbarous if it be urged, that those radicals (which ought surely to have concluded, instead of preceding, an analytical inquiry) are precious traces of the primitive language, from which all others were derived, or to which at least

least they were subsequent, I can only declare my belief, that the language of NOAH is lost irretrievably, and assure you, that, after a diligent search, I cannot find a single word used in common by the Arabian, Indian, and Tartar families, before the intermixture of dialects occasioned by Mahomedan conquests. There are, indeed, very obvious traces of the *Homœan* language, and some hundreds of words might be produced, which were formerly used promiscuously by most nations of that race; but I beg leave, as a philologer, to enter my protest against conjectural etymology in historical researches, and principally against the licentiousness of etymologists in transposing and inserting letters, in substituting at pleasure any consonant for another of the same order, and in totally disregarding the vowels: for such permutations few radical words would be more convenient than *Cus* or *Cush*, since, dentals being changed for dentals, and palatals for palatals, it instantly becomes *coot*, *goof*, and, by transposition, *duck*, all water-birds, and evidently symbolical; it next is the *goat* worshipped in *Egypt*, and, by a metathesis, the *dog* adored as an emblem of *SIRIUS*, or, more obviously, a *cat*, not the domestic animal, but a sort of ship, and the *Catas*, or great sea-fish, of the *Dorians*. It will hardly be imagined, that I mean by this irony to insult an author, whom I respect and esteem; but no consideration should induce me to assist by my silence in the diffusion of error, and I contend, that almost any word or nation might be derived from any other, if such licences, as I am opposing, were permitted in etymological histories: when we find, indeed, the same words, letter for letter, and in a sense precisely the same, in different languages, we can scarce hesitate in allowing them a common origin, and, not to depart from the example before us, when we see *Cush* or *Cus* (for the *Sayrus* name also is variously pronounced) among the sons of *BRAHMA*, that is, among the progenitors of the *Hindus*, and at the head of an ancient pedigree preserved in the *Rāmāyān*, when we meet with his name again in

the family of RA'MA, when we know, that the name is venerated in the highest degree, and given to a sacred grañ, described as a *Pas* by KOENIG, which is used with a thousand ceremonies in the oblations to fire, ordained by MENU to form the sacrificial zone of the *Brahmans*, and solemnly declared in the *Veda* to have sprung up soon after the *deluge*, whence the *Pawānicks* consider it as the *bristly hair of the boar which supported the globe*; when we add, that one of the seven *devīpas*, or great peninsulas of this earth, has the same appellation, we can hardly doubt, that the *Cush* of Moses and VA'LMIC was the same personage and an ancestor of the *Indian* race.

From the testimonies adduced in the six last annual discourses, and from the additional proofs laid before you, or rather opened, on the present occasion, it seems to follow, that the only human family after the flood established themselves in the northern parts of *Iran*, that, as they multiplied, they were divided into three distinct branches, each retaining little at first, and losing the whole by degrees, of their common primary language, but agreeing severally on new expressions for new ideas, that the branch of YA'FET was enlarged in many scattered shoots over the north of *Europe* and *Asia*, diffusing themselves as far as the western and eastern seas, and, at length, in the infancy of navigation, beyond them both, that they cultivated no liberal arts, and had no use of letters, but formed a variety of dialects, as their tribes were variously ramified, that, secondly, the children of HAM, who founded in *Iran* itself the monarchy of the first *Chaldeans*, invented letters, observed and named the luminaries of the firmament, calculated the known *Indian* period of *four hundred and thirty-two thousand years*, or *an hundred and twenty* repetitions of the *sages*, and contrived the old system of Mythology, partly allegorical, and partly grounded on idolatrous veneration for their sages and lawgivers,

that

that they were dispersed at various intervals and in various colonies over land and ocean; that the tribes of *Misa*, *Cuth*, and *Rama*, settled in *Africk* and *India*; while some of them, having improved the art of sailing, passed from *Egypt*, *Pheus*, and *Pbyrgus*, into *Italy* and *Greece*, which they found thinly peopled by former emigrants, of whom they supplanted some tribes, and united themselves with others, whilst a swarm from the same hive moved by a northerly course into *Scandinavia*, and another, by the head of the *Oxus*, and through the passes of *Bassus*, into *Caflogar* and *Eghbir*, *Khaié* and *Khoten*, as far as the territories of *Chin* and *Tancit*, where letters have been used and arts immemorially cultivated, nor is it unreasonable to believe, that some of them found their way from the eastern isles into *Mexico* and *Peru*, where traces were discovered of rude literature and Mythology analogous to those of *Egypt* and *India*, that, thurdly, the old *Chaldean* empire being overthrown by the *Affyrians* under *CAYU' MERS*, other migrations took place, especially into *India*, while the rest of *Sham's* progeny, some of whom had before settled on the Red Sea, peopled the whole *Arabian* peninsula, pressing close on the nations of *Syria* and *Pheus*, that, lastly, from all the three families were detached many bold adventurers of an ardent spirit and a roving disposition, who disdained subordination and wandered in separate clans, till they settled in distant isles or in deserts and mountainous regions, that, on the whole, some colonies might have migrated before the death of their venerable progenitor, but that states and empires could scarce have assumed a regular form, till fifteen or sixteen hundred years before the *Christian* epoch, and that, for the first thousand years of that period, we have no history unmixed with fable, except that of the turbulent and variable, but eminently distinguished, nation descended from *ABRAHAM*.

My design, gentlemen, of tracing the origin and progress of the five principal nations, who have peopled *Asia*, and of whom there were considerable remains in their several countries at the time of MUHAMMED's birth, is now accomplished; succinctly, from the nature of these essays, imperfectly, from the darkness of the subject and scantiness of my materials, but clearly and comprehensively enough to form a basis for subsequent researches you have seen, as distinctly as I am able to show, *who* those nations originally were, *whence* and *when* they moved towards their final stations; and, in my future annual discourses, I propose to enlarge on the *particular advantages* to our country and to mankind, which may result from our sedulous and united inquiries into the history, science, and arts, of these *Asiatick* regions, especially of the *British* dominions in *India*, which we may consider as the centre (not of the human race, but) of our common exertions to promote its true interests, and we shall concur, I trust, in opinion, that the race of man, to advance whose manly happiness is our duty and will of course be our endeavour, cannot long be happy without virtue, nor actively virtuous without freedom, nor securely free without rational knowledge.

THE END OF THE THIRD VOLUME.

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There are some overights, or errors of the press, both in punctuation
and orthography, which the reader is desired to correct.

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AT THE END OF THE YEAR
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ASIATIC RESEARCHES;

OR,

TRANSACTIONS

OF THE

SOCIETY

INSTITUTED IN BENGAL,

FOR INQUIRING INTO THE

HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES,
AND LITERATURE,

OF

A S I A.

VOLUME THE FOURTH

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ADVERTISEMENT

THE unfortunate death of Sir *William Jones*, on the 27th of *April*, 1794, having deprived the Society of their Founder and President, a meeting of the Members was convened on the 1st of *May* following, when it was unanimously agreed to appoint a Committee, consisting of Sir *Robert Chambers*, Mr *Justice Hyde*, Colonel *John Murray*, *John Bruden*, and *Thomas Graham*, Esquires, to wait on Sir *John Shore*, and, in the Name of the Society, request his acceptance of the office of their President. With this request he, in terms highly flattering to the Society, agreed to comply, and on the 22d of *May* 1794, took his seat as President, and delivered the Discourse No 12, of this Volume.

FREDMUND MORRIS, Sculpsit.

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ASIATIC RESEARCHES.

I.

THE TENTH
ANNIVERSARY DISCOURSE,
DELIVERED 28 FEBRUARY, 1793,
BY THE PRESIDENT,
ON ASIATIC HISTORY,
CIVIL AND NATURAL

BEFORE our entrance, Gentlemen, into the Disquisition promised at the close of my ninth Annual Discourse, on the *particular advantages* which may be derived from our concurrent researches in *Asia*, it seems necessary to fix, with precision, the sense in which we mean to speak of *advantages* or *utility*. Now, as we have described the five *Asiatic* regions on their largest scale, and have expanded our conceptions in proportion to the magnitude of that wide field, we should use those words, which comprehend the fruit of all our inquiries, in their most extensive acceptation, including not only the solid conveniences and comforts of social life, but its elegances and innocent pleasures, and even the gratification of a natural and laudable curiosity, for, though labour be clearly the lot of man in this world, yet, in the midst of his most active exertions, he cannot but feel the substantial benefit of every liberal amusement which may lull his passions to rest, and afford him a sort of re-

pose without the pain of total inaction, and the real usefulness of every pursuit which may enlarge and diversify his ideas, without interfering with the principal objects of his civil station or economical duties, nor should we wholly exclude even the trivial and worldly sense of *utility*, which too many consider as merely synonymous with *use*, but should reckon among useful objects those practical, and by no means illiberal arts, which may eventually conduce both to national and to private emolument. With a view then to *utility* thus explained, let us examine every point in the whole circle of arts and sciences, according to the received order of their dependence on the faculties of the mind, their mutual connexion, and the different subjects with which they are conversant our inquiries indeed, of which Nature and Man are the primary objects, must of course be chiefly *Historical*, but since we propose to investigate the *actions* of the several *Asiatic* nations, together with their respective progress in *sciences* and *art*, we may arrange our investigations under the same three heads to which our *European* analysts have ingeniously reduced all the branches of human knowledge, and my present address to the Society shall be confined to history, civil and natural, or the observation and remembrance of *more facts*, independently of *ratiocination*, which belongs to *philosophy*, or of *inventions* and *substitutions*, which are the province of *art*.

With a superior created intelligence to delineate a map of general knowledge (exclusively of that sublime and stupendous theology, which himself could only hope humbly to know by an infinite approximation) he would probab'ly begin by tracing with *Newton* the system of the universe, in which he would assign the true place to our little globe, and, having enumerated its various inhabitants, contents, and productions, would proceed to man in his natural station among animals exhibiting a detail of all the knowledge attain-

ed or attainable by the human race, and thus observing perhaps, the same order in which he had before described other beings in other inhabited worlds, but though *Bacon* seems to have had a similar reason for placing the history of Nature before that of Man, or the whole before one of its parts, yet, consistently with our chief object already mentioned, we may properly begin with the *civil history* of the five *Asiatic* nations, which necessarily comprises their Geography, or a description of the *places* where they have acted, and their Astronomy, which may enable us to fix with some accuracy the *time* of their actions, we shall thence be led to the history of such other *animals*, of such *minerals*, and of such *vegetables* as they may be supposed to have found in their several migrations and settlements, and shall end with the uses to which they have applied, or may apply, the rich assemblage of natural substance.

I In the first place, we cannot surely deem it an inconsiderable advantage, that all our historical researches have confirmed the *Mosaic* account of the primitive world, and our testimony on that subject ought to have the greater weight, because, if the result of our observations had been totally different, we should nevertheless have published them, not indeed with equal pleasure, nor with equal confidence, for *Truth is mighty, and, whatever be its consequences, must always prevail* but, independently of our interest in corroborating the multiplied evidences of revealed religion, we could scarce gratify our minds with a more useful and rational entertainment than the contemplation of those wonderful revolutions in kingdoms and states, which have happened within little more than four thousand years, revolutions almost as fully demonstrative of an all-ruling Providence as the structure of the universe, and the final causes which are discernible in its whole extent, and even in its minutest parts. Figure to your imaginations a moving picture of that eventful

period, or rather a succession of crowded scenes rapidly changed. Three families migrate in different courses from one region, and, in about four centuries, establish very distant governments and various modes of society. *Egyptians*, *Indians*, *Goths*, *Phenicians*, *Celts*, *Greeks*, *Latians*, *Chinese*, *Peruvians*, *Mexicans*, all sprung from the same immediate stem, appear to start nearly at one time, and occupy at length those countries, to which they have given, or from which they have derived, their names. In twelve or thirteen hundred years more, the *Greeks* overrun the land of their forefathers, invade *India*, conquer *Egypt*, and aim at universal dominion, but the *Romans* appropriate to themselves the whole empire of *Greece*, and carry their arms into *Britannia*, of which they speak with hasty contempt. The *Goths*, in the fulness of time, break to pieces the unwieldy *Colossus of Roman power*, and seize on the whole of *Brutum*, except its wild mountains, but even those wilds become subject to other invaders of the same *Gothic* lineage. During all those transactions the *Arabs* possess both coasts of the Red Sea, subdue the old seat of their first progenitors, and extend their conquests, on one side, thro' *Africa*, into *Europe* itself, on another, beyond the borders of *India*, part of which they annex to their flourishing empire. In the same interval the *Tartars*, widely diffused over the rest of the globe, swarm in the north-east, wheoee they rush to complete the reduction of *CONSTANTINE's* beautiful domains, to subjugate *China*, to raise in these *Indian* realms a dynasty splendid and powerful, and to ravage, like the two other families, the devoted regions of *Iran*. By this time the *Mexicans* and *Peruvians*, with many races of adventurers variously intermixed, have peopled the continent and isles of *America*, which the *Spaniards*, having restored their old government in *Europe*, discover and in part overcome but a colony from *Britannia*, of which *CICERO* ignorantly declared, that it contained nothing valuable, obtain the possession, and finally the sovereign dominion of extensive *American* districts, whilst other

British

British subjects acquire a subordinate empire in the finest provinces of *India*, which the victorious troops of *ALEXANDER* were unwilling to attack. This outline of human transactions, as far as it includes the limits of *Asia*, we can only hope to fill up to strengthen, and to colour by the help of *Asiatic* literature, for in history, as in law, we must not follow streams when we may investigate fountains, nor admit any secondary proof where primary evidence is attainable I should, nevertheless, make a bad return for your indulgent attention, were I to repeat a dry list of all the *Muselman* historians whose works are preserved in *Arabic*, *Persian*, and *Turkish*, or expatiate on the histories and medals of *China* and *Japan*, which may in time be accessible to members of our Society, and from which alone we can expect information concerning the ancient state of the *Tartars*, but on the history of *India*, which we naturally consider as the centre of our enquiries, it may not be superfluous to present you with a few particular observations

Our knowledge of civil *Asiatic* history (I always except that of the *Hebreus*) exhibits a short evening twilight in the venerable introduction to the first book of *Moses*, followed by a gloomy night, in which different watches are faintly discernible, and at length we see a dawn succeeded by a sun-rise more or less early according to the diversity of regions That no *Hindoo* nation, but the *Kashmirens*, have left us regular histories in their ancient language, we must ever lament, but from the *Sanskrit* literature, which our country has the honour of having unveiled, we may still collect some rays of historical truth, though time, and a series of revolutions, have obscured that light which we might reasonably have expected from so diligent and ingenious a people The numerous *Puranas* and *Itihasas*, or poems mythological and heroic, are completely in our power, and from them we may recover

some

some disfigured but valuable pictures of ancient manners and governments ; while the popular *tales* of the *Hindus*, in prose and in verse, contain fragments of history , and even in their *dramas* we may find as many real characters and events as a future age might find in our own plays, if all histories of *England* were, like those of *India*, to be irrecoverably lost. For example, a most beautiful poem by *Somadeva*, comprising a very long chain of instructive and agreeable stories, begins with the famed revolution at *Pataliputra*, by the murder of king *NANDA* with his eight sons, and the usurpation of *CHANDRAUGPTA*, and the same revolution is the subject of a tragedy in *Sanskrit*, entitled the Coronation of *CHAUDRA*, the abbreviated name of that able and adventurous usurper From these once concealed, but now accessible compositions, we are enabled to exhibit a more accurate sketch of old *Indian* history than the world has yet seen, especially with the aid of well-attested observations on the places of the colures It is now clearly proved, that the first *Purana* contains an account of the deluge , between which and the *Mohammedan* conquests the history of genuine *Hindu* government must of course be comprehended, but we know from an arrangement of the seasons in the astronomical work of *PARKASARA*, that the war of the *PANDAVAS* could not have happened earlier than the close of the twelfth century before *Christ* , and *SULUCA'S* must, therefore, have reigned about nine centuries after that war Now the age of *VICRAMADITIYA* is given , and, if we can fix on an *Indian* prince contemporary with *SULEIMAN*, we shall have three given points in the line of time between *RAMA*, or the first *Indian* colony, and *CHANDRAUGPTA*, the last *Hindu* monarch who reigned in *Behar* , so that only eight hundred or a thousand years will remain almost wholly dark , and they must have been employed in raising empires or states, in framing laws, improving languages and arts, and in observing the apparent motions

of the celestial bodies. A *Sanskrit* history of the celebrated VICHRAMADITIYA was inspected at Benares by a *Pandit*, who would not have deceived me, and could not himself have been deceived, but the owner of the book is dead, and his family dispersed, nor have my friends in that city been able, with all their exertions, to procure a copy of it. As to the *Mogul* conquests, with which modern Indian history begins, we have ample accounts of them in *Persian*, from ALI of Izad, and the translations of *Turkish*, books composed even by some of the conquerors, to GHULAM HUSAIN, whom many of us personally know, and whose impartiality deserves the highest applause, though his unrewarded merit will give no encouragement to other contemporary historians, who, to use his own phrase in a letter to myself, may, like him, consider plain truth as the beauty of historical composition. From all these materials, and from these alone, a perfect history of India (if a mere compilation, however elegant, could deserve such a title) might be collected by any studious man who had a competent knowledge of *Sanskrit*, *Persian*, and *Arabic*, but even in the work of a writer so qualified, we could only give absolute credence to the general outline, for, while the abstract sciences are all truth, and the fine arts all fiction, we cannot but own, that in the details of history, truth and fiction are so blended as to be scarce discernible.

The practical use of history, in affording particular examples of civil and military wisdom, has been greatly exaggerated, but principles of action may certainly be collected from it, and even the narrative of wars and revolutions may serve as a lesson to nations, and an admonition to sovereigns. A desire, indeed, of knowing past events, while the future cannot be known, and a view of the present, gives often more pain than delight, seems natural to the human mind, and a happy propensity would it be, if every reader of history would open his eyes to some very important corollaries, which flow from the whole

extent of it He could not but remark the constant effect of despotism in benumbing and debasing all those faculties which distinguish men from the herd that grazes, and to that cause he would impute the decided inferiority of most *Asiatic* nations, ancient and modern, to those in *Europe* who are blest with happier governments, he would see the *Arabs* rising to glory, while they adhered to the free maxims of their bold ancestors, and sinking to misery from the moment when those maxims were abandoned On the other hand, he would observe with regret, that such *republican* governments, as tend to produce virtue and happiness, cannot in their nature be permanent, but are generally succeeded by *oligarchies*, which no good man would wish to be durable He would then, like the king of *Lydia*, remember *Solon*, the wisest, bravest, and most accomplished of men, who asserts in four nervous lines, that "as
 " hail and snow, which mar the labours of husbandmen, proceed from elevated
 " clouds, and as the destructive thunderbolt follows the brilliant flash, thus
 " a free state ruined by men exalted in power and splendid in wealth, who
 " the people, from gross ignorance, chuse rather to become the slaves of one ty-
 " rant, that they may escape from the domination of many, than to preserve
 " themselves from tyranny of any kind by their union and their virtues"
 Since, therefore, no unmixed form of government could both deserve permanence and enjoy it, and since changes, even from the worst to the best, are always attended with much temporary mischief, he would fix on our *British* constitution (I mean our *public law*, not the actual *state of things* in any given period) as the best form ever established, though we can only make distant approaches to its theoretical perfection In these *Indian* territories, which Providence has thrown into the arms of *Britain* for their protection and welfare, the religion, manners, and laws of the natives preclude even the idea of political freedom, but their histories may possibly suggest hints for their prosperity, while our country derives essential benefit from the diligence of a

placid and submissive people, who multiply with such increase, even after the ravages of famine, that in one collectorship out of twenty-four, and that by no means the largest or best cultivated (I mean *Christna-nagar*) there have lately been found, by an actual enumeration, a million and three hundred thousand native inhabitants, whence it should seem, that in all *India* there cannot now be fewer than *thirty millions* of black *British* subjects

LET us proceed to *geography* and *chronology*, without which history would be no certain guide, but would resemble a kindled vapour without either a settled place or a steady light. For a reason before intimated, I shall not name the various cosmographical books which are extant in *Arabic* and *Persian*, nor give an account of those which the *Turks* have beautifully printed in their own improved language, but shall expatiate a little on the geography and astronomy of *India*, having first observed generally, that all the *Asiatic* nations must be far better acquainted with their several countries than mere European scholars and travellers, that, consequently, we must learn their geography from their own writings, and that, by collating many copies of the same work, we may correct the blunders of transcribers in tables, names, and descriptions.

GEOGRAPHY, astronomy, and chronology have, in this part of *Asia*, shared the fate of authentic history, and, like that, have been so masked and decked in the fantastic robes of mythology and metaphor, that the real system of *Indian* philosophers and mathematicians can scarce be distinguished. An accurate knowledge of *Sancrit* and a confidential intercourse with learned *Brahmens*, are the only means of separating truth from fable, and we may expect the most important discoveries from two of our members, concerning

whom it may be safely asserted, that if our Society should have produced no other advantage than the invitation given to them for the public display of their talents, we should have a claim to the thanks of our country and of all Europe Lieutenant WILFORD has exhibited an interesting specimen of the geographical knowledge deducible from the *Purâas*, and will in time present you with so complete a treatise on the ancient world known to the *Hindus*, that the light acquired by the *Greeks* will appear but a glimmering in comparison of that which he will diffuse, while Mr DAVIS, who has given us a distinct idea of *Indian* computations and cycles, and ascertained the place of the colures at a time of great importance in history, will hereafter disclose the systems of *Hindu* astronomers, from NARED and PARASAR to MEYA, VARAHAMIHIR, and BHASCAR, and will soon, I trust, lay before you a perfect delineation of all the *Indian* asterisms in both hemispheres, where you will perceive so strong a general resemblance to the constellations of the *Greeks*, as to prove that the two systems were originally one and the same, yet with such a diversity in parts, as to show uncontestedly, that neither system was copied from the other, whence it will follow, that they *must* have had some common source

The jurisprudence of the *Hindus* and *Arabs* being the field which I have chosen for my peculiar toil, you cannot expect that I should greatly enlarge your collection of historical knowledge, but I may be able to offer you some occasional tribute, and I cannot help mentioning a discovery which accident threw in my way, though my proofs must be reserved for an essay which I have destined for the fourth volume of your Transactions To fix the situation of that *Pahlbothra* (for there may have been several of the name) which was visited and described by MEGASTHENES, had always appeared a very difficult problem, for though it could not have been *Prayaga*, where no ancient

metropolis ever stood, nor *Caryacubya*, which has no epithet at all resembling the word used by the Greeks, nor *Gaur*, otherwise called *Lachmanastri*, which all know to be a town comparatively modern, yet we could not confidently decide that it was *Pataliputra*, though names and most circumstances nearly correspond, because that renowned capital extended from the confluence of the *Sone* and the *Ganges* to the site of *Patna*, while *Pataliputra* stood at the junction of the *Ganges* and *Erannobas*, which the accurate M D'ANVILLE had pronounced to be the *Yamuna*, but this only difficulty was removed, when I found in a classical *Sanscrit* book, near 2000 years old, that *Huanyabhan*, or *golden-armed*, which the Greeks changed into *Erannobas*, or the river with a lovely murmur, was in fact another name for the *Son* itself, though M. CASTHELS, from ignorance or inattention, has named them separately. This discovery led to another of greater moment, for CHANDRAGUPTA, who, from a military adventurer, became, like SANDRACOTIS, the sovereign of Upper Hindostan, actually fixed the seat of his empire at *Pataliputra* where he received ambassadors from foreign princes, and was no other than that very SANDRACOTUS who concluded a treaty with Seleucus Nicator, so that we have solved another problem, to which we before alluded, and may in round numbers consider the twelve and three hundredth years before CHRIST as two certain epochs between *Rama*, who conquered *Silon* a few centuries after the flood, and *Viramana*, who died at *Liggum* fifty-seven years before the beginning of our era.

II SINCE these discussions would lead us too far, I proceed to the history of Nature, distinguished, for our present purpose, from that of Man, and divided into that of other animals who inhabit this globe, of the mineral substances which it contains, and of the vegetables which so luxuriantly and so beautifully adorn it.

1. COULD the figure, instincts, and qualities of birds, beasts, insects, reptiles, and fish be ascertained, either on the plan of BUFFON, or on that of LINNÆUS, without giving pain to the objects of our examination, few studies would afford us more solid instruction, or more exquisite delight, but I never could learn by what right, nor conceive with what feelings a naturalist can occasion the misery of an innocent bird, and leave its young, perhaps, to perish in a cold nest, because it has gay plumage, and has never been accurately delineated, or deprive even a butterfly of its natural enjoyments, because it has the misfortune to be rare or beautiful, nor shall I ever forget the couplet of FIRDAUSI, for which SADI, who cites it with applause, pours blessings on his departed spirit —

Ah ! spare you emmet, rich in hoarded grain,
He lives with pleasure, and he dies with pain

This may be only a confession of weakness, and it certainly is not meant as a boast of peculiar sensibility, but whatever name may be given to my opinion, it has such an effect on my conduct, that I never would suffer the *Cocila*, whose wild notes announce the approach of spring, to be caught in my garden, for the sake of comparing it with BUFFON's description, though I have often examined the domestic and engaging *Majana*, which bids us good morrow at our windows, and expects, as its reward, little more than security even when a fine young *Manus* or *Pangolin* was brought me, against my wish, from the mountains, I solicited his restoration to his beloved rocks, because I found it impossible to preserve him in comfort at a distance from them There are several treatises on animals in *Arabic*, and very particular accounts of them in *Chinese*, with elegant outlines of their external appearance, but I have met with nothing valuable concerning them in *Per-*

skin, except what may be gleaned from the medical dictionaries, nor have I yet seen a book in *Sanscrit* that expressly treats of them. On the whole, though rare animals may be found in all *Asia*, yet I can only recommend an examination of them with this condition, that they be left, as much as possible, in a state of natural freedom, or made as happy as possible, if it be necessary to keep them confined.

2 The history of minerals, to which no such objection can be made, is extremely simple and easy, if we merely consider their exterior look and configuration, and their visible texture, but the analysis of their internal properties belongs particularly to the sublime researches of Chemistry, on which we may hope to find useful disquisitions in *Sanscrit*, since the old *Hindus* unquestionably applied themselves to that enchanting study, and even from their treatises on alchemy we may possibly collect the results of actual experiment, as their ancient astrological works have preserved many valuable facts relating to the *Indian* sphere and the precession of the equinox. Both in *Persian* and *Sanscrit*, there are books on metals and minerals, particularly on *gems* which the *Hindu* philosophers considered (with an exception of the diamond) as varieties of one crystalline substance, either simple or compound but we must not expect from the chymists of *Asia* those beautiful examples of analysis which have but lately been displayed in the laboratories of *Europe*.

3 We now come to *Botany*, the loveliest and most copious division in the history of nature, and all disputes on the comparative merit of systems being at length, I hope, condemned to one perpetual night of undisturbed slumber, we cannot employ our leisure more delightfully than in describing all new *Asiatic* plants in the *Lamian* style and method, or in correcting the descrip-

tions of those already known, but of which dry specimens only, or drawings, can have been seen by most *European* botanists. In this part of natural history we have an ample field yet unexplored, for, though many plants of *Arabia* have been made known by GARCIA, PROSPER ALPINUS, and FORSKOEL, of *Persia*, by GARCIN; of *Tartary*, by GMELIN and PALLAS, of *China* and *Japan*, by KEMPFER, OSBECK, and THUNBERG, of *India*, by RHELTE and RUMPHIUS, the two BURMANS, and the much lamented KENIG, yet none of those naturalists were deeply versed in the literature of the several countries from which their vegetable treasures had been procured, and the numerous works in *Sanskrit* on medical substances, and chiefly on plants, have never been inspected, or never at least understood, by any *European* attached to the study of nature. Until the garden of the *India* Company shall be fully stored (as it will be, no doubt, in due time) with *Arabian*, *Persian*, and *Chinese* plants, we may well be satisfied with examining the native flowers of our own provinces, but unless we can discover the *Sanskrit* names of all celebrated vegetables, we shall neither comprehend the illusions which *Indian Poets* perpetually make to them, nor (what is far worse) be able to find accounts of their tried virtues in the writings of *Indian physicians*, and (what is worst of all) we shall miss an opportunity, which never again may present itself, for the *Pandits* themselves have almost wholly forgotten their ancient appellations of particular plants, and, with all my pains, I have not yet ascertained more than *two hundred* out of twice that number, which are named in their medical or poetical compositions. It is much to be deplored, that the illustrious VAN RHEBDB had no acquaintance with *Sanskrit*, which even his three *Brāhmens*, who composed the short preface engraved in that language, appear to have understood very imperfectly, and certainly wrote with disgraceful inaccuracy. In all his twelve volumes I recollect only *Punarnava*, in which the *Nugent* letters are tolerably

right; the *Hindu* words in *Arabian* characters are shamefully incorrect, and the *Malabar*, I am credibly informed, is as bad as the rest. His delineations, indeed, are in general excellent; and though *LINNAEUS* himself could not extract from his written descriptions the natural character of every plant in the collection, yet we shall be able, I hope, to describe them all from the life, and to add a considerable number of new species, if not of new genera, which *RHEEDE*, with all his noble exertions could never procure. Such of our learned members as profess medicine, will, no doubt, cheerfully assist in these researches, either by their own observations, when they have leisure to make any, or by communications from other observers among their acquaintance, who may reside in different parts of the country and the mention of their art leads me to the various uses of natural substances, in the three kingdoms or classes to which they are generally reduced.

III. You cannot but have remarked, that almost all the *sciences*, as the *French* call them, which are distinguished by *Greek names* and arranged under the head of Philosophy, belong for the most part to history, such as philology, chemistry, physic, anatomy, and even metaphysics, when we barely relate the phenomena of the human mind, for, in all branches of knowledge we are only historians when we announce facts, and philosophers only when we reason on them the same may be confidently said of law and of medicine, the first of which belongs principally to civil, and the second chiefly to natural history. Here, therefore, I speak of *medicine*, as far only as it is grounded on experiment, and, without believing implicitly what *Arabs*, *Persians*, *Chinese*, or *Hindus* may have written on the virtues of medicinal substances, we may, surely, hope to find in their writings what our own experiments may confirm or disprove, and what might never have occurred to us without such intumations.

EUROPEANS enumerate more than *two hundred and fifty* mechanical arts, by which the productions of nature may be variously prepared for the convenience and ornament of life, and, though the *Silpasāstra* reduce them to *sixty-four*, yet *Abulfazl* had been assured that the *Hindus* reckoned *three hundred* arts and sciences now, their sciences being comparatively few, we may conclude that they anciently practised at least as many useful arts as ourselves. Several *Pandits* have informed me, that the treatises on art, which they call *Upavéda*, and believe to have been inspired, are not so entirely lost but that considerable fragments of them may be found at *Benares*, and they certainly possess many popular, but ancient works on that interesting subject. The manufactures of sugar and indigo have been well known in these provinces for more than two thousand years, and we cannot entertain a doubt that their *Sanskrit* books on dying and metallurgy, contain very curious facts, which might, indeed, be discovered by accident, in a long course of years, but which we may soon bring to light, by the help of *Indian* literature, for the benefit of manufacturers and artists, and consequently of our nation, who are interested in their prosperity Discoveries of the same kind might be collected from the writings of other *Asiatic* nations, especially of the *Chinese*, but, though *Persian*, *Arabic*, *Turkish*, and *Sanskrit* are languages now so accessible, that, in order to attain a sufficient knowledge of them, little more seems required than a strong inclination to learn them, yet the supposed number and intricacy of the *Chinese* characters have deterred our most diligent students from attempting to find their way through so vast a labyrinth It is certain, however, that the difficulty has been magnified beyond the truth, for the perspicuous grammar by M. *Fournier*, together with a copious dictionary, which I possess, in *Chinese* and *Latin*, would enable any man who pleased, to compare the original works of *Claudius*, which are easily procured, with the literal translation of them by *Couplet*, and having made

that first step with attention, he would probably find, that he had traversed at least half of his career. But I should be led beyond the limits assigned to me on this occasion, if I were to expatiate farther on the historical division of the knowledge comprised in the literature of *Asia*, and I must postpone till next year my remarks on *Asiatic Philosophy*, and on those arts which depend on imagination, promising you with confidence, that in the course of the present year your inquiries into the *civil and natural history* of this eastern world, will be greatly promoted by the learned labours of many among our associates and correspondents.

II.

ON THREE NATURAL PRODUCTIONS OF SUMATRA.

BY JOHN MACDONALD, ESQ

II i

ON THE CAMPHOR OF SUMATRA.

IN answer to some questions put to me by the President of the *Asiatic Society* respecting camphor-oil, I have the pleasure of giving the solution contained in the following short account — Camphor-oil, one of the essential oils, is actually camphor, before the operations of nature on it have reduced it to the concrete form in which it is found in the tree. When Mr MARSDEN composed his justly-admired history of *Sumatra*, the prevalent opinion on this subject was, that the oil and the concreted camphor were never found in the same tree I have the authority of a gentleman, Lieutenant LEWIS, well informed on this subject, from a residence of many years in the country producing the camphor, to differ from that generally accurate author, by saying, that he has seen a tree three quarters of a mile from the sea, near *Tappanooly*, from which three *catties* (above three pounds) of camphor, and at the same time, near two gallons of oil had been procured If a tree be old, and yield oil plentifully, the natives esteem these two circumstances sure indications of its containing a considerable quantity of camphor Mr MACQUER, in his chemical dictionary, has remarked, that the nitrous acid dissolves camphor without commotion, that the solution is clear and limpid, and that it is called camphor-oil This af-

fords a proof that the formed camphor is produced from the oil by a natural operation of composition, the decomposition by means of the above solvent reducing the substance to its primary state, previous to concretion. The Achinese are reckoned the best judges of camphor, and the oil they collect undergoes a process by distillation, leaving a residuum of inferior camphor. Trees of a certain age only yield camphor. It would seem that a certain time is requisite for maturing the oil to that state, when its contained camphor becomes fit for being concreted by the heat of the sun acting on the tree and soil. The camphor-tree is one of the *Eneandria Monogyna* of LINNÆUS, and differs in a small variation in the form of the leaf from the *Arbor Camphorifera Japonica, foliis laurina, fructu parvo, calyce brevissimo.* The tree very much resembles the Bay in leaves. The truck is thick, the bark of a brownish appearance, and the ramification strong, close, and extended. It is fond of a rich red loam, tending to a blackish clay, mixed with a crumbling stone of the colour of marl. It grows principally on the N. W. side of Sumatra, from the line 3° N. nearly. The wood is useful for domestic purposes, being soft and easily worked. It is by many imagined, that camphor is produced by a chemical process. This is a mistaken idea, farther than regards the inferior kind arising from the distillation of the oil. I shall give a brief account of the mode of obtaining and preparing it, as practised by the natives of Sumatra, from the time of the establishment of the English on the island. The Sumatrans, previous to their setting out in quest of camphor, assemble on the confines of the country they intend exploring, and discharge a variety of religious duties and ceremonies, calculated in their opinion, to promote the future success of their undertaking. They enter the woods, and, from experience, soon distinguish such trees as contain camphor. They pierce them, and if they yield oil plentifully, it is presumed they contain concreted camphor, which is found in small whitish flakes,

flakes, situated perpendicularly in irregular veins, in and near the centres of the trees. The tree is cut down, divided into junks, and carefully divested of its camphor. When the oil has been drawn off from young trees, the camphor, which they afterwards afford, is of a less valuable nature, and is termed *belly* or *foot* camphor, in proportion to the degree of affinity it bears to *head*, or the best sort. When brought for sale, it is repeatedly soaked and washed in soapy water, to separate from it all heterogeneous and sandy particles that may have adhered to it. When clean, it will sink in water, and be of a white, glossy, smooth appearance, tending to transparency. After it has been washed, it is passed through three sieves of differing textures, so as to be divided into *head*, *belly*, and *foot* camphor certain proportions of each compose the chests made up for the *China* market, where they are sold for 350*l* sterling, nearly. The *apoor** (a word of *Arabic* origin) *macee*, or dead camphor, is carefully separated from the three divisions, by an acuteness of distinction, acquired by the eye and hand from habit and attention, and, being mixed with the imperfect kind mentioned above, is pounded in a mortar and distributed among proportional quantities of foot camphor. This *apoor-macee* is sometimes procured by boiling down the thickest part of the oil, or by taking the sediment of the best oil, after it has settled at least twenty-four hours. Camphor-oil is found to be a sovereign remedy for strains, bruises, and other external pains, from its penetrating quality in entering the pores, and gently agitating the affected parts, so as to quicken the stagnated circulation. The internal, anodyne and dia-phoretic, and the external, antispasmodic and sedative virtues of camphor are well known. The oil is found to possess these in a certain degree, and to be useful in removing the painful spasms of the nerves and tendons, by

* *Cdfor* in *Arabic*, and *Carpino* in *Sanscrit*.

dissipating

dissipating the surrounding acid humours. When the oil is used, it must be formed into a liniment, as it would alone occasion pain from its strength. The oil applied to sores on horses has been found very beneficial. In this case it ought to be mixed with the juice of tobacco. *Sumatra* affords annually from fifteen to twenty *peculs* (of 133½ pounds each) of camphor, and more oil than there is at present a demand for. The *Chinese* purchase it, and it is not clearly ascertained whether they use it all in *China*, or make a factitious species of it, by admixture of *Japanese* camphor, for the *Europe* market the latter is generally supposed. It is highly probable, that the price of camphor will, in process of time, rise to an enormous degree, as one tree in three hundred is not found to contain camphor, and, when found, is immediately cut down, in consequence of which, the plant must soon become scarce, and the produce proportionably dear. It is to be hoped that the oil will, in this event, be found by the faculty to possess all the useful qualities of this valuable medicine. I have the satisfaction of accompanying this paper with a specimen, though a small one, of the camphor-wood, with a small quantity of the substance in it, the rest having evaporated from length of time. If this account should afford any information to the President and Members of the *Asiatic Society*, my intention will be fully answered.

II. 2.

ON THE CORAL OF SUMATRA

IF this paper should be deemed worthy of a place in the Transactions of the *Asiatic Society*, the insertion I must still consider as an indulgence, and my attempt, a proof that I am more anxious than able, to encrease the general stock of *Eastern* natural knowledge, recorded in the useful annals of the Society. Specimens of coral, for your acceptance, and for the illustration of this subject, are now forwarded.

THE appearance of *Sumatran* coral does not altogether correspond with the descriptions of the plant hitherto given.* This induces me to describe such parts as are imperfectly represented. The plant, to which the various species of coral belong, is one of the *Cryptogamiae* of *LINNAEUS*, and may be reckoned one of the *Herbae Marinae* of *Tournefort*, or the *Herbe imperfecte* of Mr *RAY*. It may be reduced to three colours, red, black, and whitish-yellow the last is the most common in the *Eastern* seas. It is of a fungous texture, equally hard out of and in its natural element, and its pores are charged with a juice of a milky appearance, in some degree acid. The bark covers every part of the tree, and contains a number of perforated *papille* terminating in tubes, having two or more holes in each, intended, I imagine, for the admission of the matter affording nutriment to the plant

* See the remark at the end of this paper

The internal projections of the *papille* adhere to the particles of sand and stone on which the coral grows, and are the only appearance of roots it exhibits. On examining the internal extremities of these *papille* by means of glasses, some very small ramifications are discovered. These are very easily observed in the *papille*, which are attached to the bark of the root. The tree is said to grow to the height of two feet I have seen some as high as ten feet. From these and other differences in appearance, I am apt to think that some European and Indian corals are not the same, but species of the same genus. From the very rapid growth of coral on the west coast of Sumatra, and in the Eastern seas in general, as will be shown in this paper, there can subsist but little doubt that it is a vegetable substance, though there have not been wanting some, who have supposed it a fossil formed like crystals and spars; and others, eminent naturalists, who have ranked it among the animal tribes. BOCCHONI discovered that this plant encloses a nutritious juice under its bark and Count MARSIGLI remarked and observed its flowers and seeds. I shall here insert MARSIGLI's accurate experiment, which affords the decision of almost absolute demonstration in favour of coral being a vegetating plant "Having steeped some coral, fresh-gathered in sea-water, he perceived, in a short time, that the little ruddy tubercles which appeared on the surface of the bark, began gradually to unfold, and at length opened into white flowers in the form of stars, with eight points which were sustained by a little calyx, divided, in like manner, into eight parts. Upon taking the coral out of the water, the flowers immediately closed, and returned into red tubercles as before, which tubercles, being closely squeezed, yielded a sort of milky juice and upon returning the coral into the water as before, the tubercles, in an hour's time, opened, or flowered afresh, and thus was continued for six or eight days, when the buds, or tubercles, ceased to blow any more. In ten or twelve days they became detached from

from the coral, and sunk to the bottom, in form of little yellow balls. These tubercles then, according to the analogy of plants, should be the flowers of coral, and the milky viscid juice contained therein, the pollen. Accordingly it is held, that when this juice falls on a properly disposed body or nucleus, a new coral arises therefrom, and the analysis of coral answers precisely to that of other sea-plants, all of them affording a volatile urinous salt, and a thick blackish fetid oil"—*Elementa Chemiae of BOERHAAVE*, page 135, Note vol i & Mem de l'Acad An. 1708.

WHETHER, after all, the striated *papillæ*, which are of a stellar figure, and the two or more apertures of which are divided, generally, into twelve parts, contain an animal whose labour produces the growth of the coral, or who inhabits the coral for its own immediate satisfaction, is a question that has been much agitated, without affording any certain conclusions. Monsieur de PEYSSONNEL, after having inquired into and discussed the various arguments for and against coral's being a petrification or a congelation, concludes that it is the work of an insect, which he denominates an *Urtica*, *Purpura*, or *Polype*, that contracts in air, expands in water, and is sensible to the touch, or the action of an acid. From MARSIGLI's experiment, as recited above, I think we may safely conclude, that PEYSSONNEL mistook the matter, and supposed a flower an insect, for it is well known that many flowers, on being plunged into an acid, will exhibit signs of contraction and movement. We observe many growing substances, which are inhabited by animals, or insects, merely for their convenience, and not to promote the growth of such substances, which they very frequently, on the contrary, retard. If an animal can be supposed to produce such immense bodies of this substance, as I shall have occasion to mention, whence does it derive the prodigious degree of nutriment requisite for the purpose, as it is not found that it quits the cen-

tre of its striated habitation? why do not these *termitous marmi* leave cells behind them, as they advance the growth of the coral? We find none, but, on the contrary, the surface uniformly smooth and even. As for the external cells, they are the channels that convey nourishment, and correspond to the fibres of plants. It must remain, however, in some degree, a doubt, whether these marine productions are zoophytes, produced by the labour of animals, or whether they are produced on a vegetating principle. It will be difficult to bring this matter to the test of modern natural philosophy, *viz.* experiment. but till such can be made, opinions must be various, though the majorrity, and apparently (from MARSIGLI's experiment) the best founded, incline to the belief of corals being produced by vegetation. Having slightly reviewed both sides of this curious question, and having hazarded my own opinion, which can be of little weight, I come now to the intention of troubling the *Asian Society* with these remarks, imperfect as they must appear.

The production of islands, on the west coast of Sumatra, by the very rapid increase of this wonderful plant, is a remarkable effect of the operations of nature, hitherto unrecorded in the annals of natural philosophy. Mr DALBYMPLE alone has alleged a fact, to which this account will add the weight of convincing testimony. In the year 1784, I was directed to survey the coast of the Dutch districts on the west side of the island of Sumatra. During the course of this survey, I had occasion to lay down on my charts several shoals, consisting of branched coral, sand, and such heterogeneous matter as they will resist and incorporate with themselves, when impelled against them by the action of the seas, winds, tide, or currents. The surfaces of these shoals were at various depths, from one foot to three or more fathoms. They are of a conical form, the base, in proportion to the axis, being small. This shape gives them, in general, the appearance of trees of that figure, such

as the poplar, &c One of the shoals I visited, to the south-west of *Poeloo Puang*, near *Padang*, was at that time covered by two feet and an half of water, and could not be distinguished by vessels passing at some distance, but at such times as the winds produced a swell or agitation on it I passed along this part of the coast in *February 1789*, very close to this shoal, just four years and seven months after the period at which the survey had been taken, and was not a little astonished to observe a small sandy island, about ten yards in diameter, having a few bushes growing on it, formed on the top of the shoal, which lies nearly in thirty seven fathoms of water I could not mistake this shoal, as there was no other contiguous to it, and as my chart, by which I suggested the safest course to run in, then lay before me In *May and September 1789*, I had an opportunity, in going to and returning from *Tappanossy-harbour* (which I had been directed to survey) to be again on several of the shoals included in my chart of the coasts of the Dutch-districts, and, according to my expectations, found the depth of the water on them considerably diminished since the survey had been taken In *March 1790*, I was sent for by a gentleman at *Fort Marlborough*, whose house commanded a view of the sea, to observe the water breaking on two shoals in the roads This gentleman had resided on the coast near fifteen years, and frequently in this house, without having observed these shoals, which, had they appeared at any former period, must have been remarked, their situation being clearly and distinctly exposed to the daily and immediate observation of the settlement At the distance of seven miles from *Fort Marlborough*, nearly in a south-west direction, there is a small island, having a few cocoa-nut trees on it Thirty miles (or it may be twenty-five) distant from this island, one of the northern pepper settlements is situated on a rising ground The gentleman residing there has informed me, that he has always been able to distinguish the masts of vessels lying at anchor

near this island, and that he lately twice distinctly, in the proper hearing, observed the trees of the island but that, afterwards, from hazy weather, or some other affection of the atmosphere, he could not perceive the island, or rather the trees on it. Former residents of *Laye*, the place of observation, have, in vain, when using the best glasses, looked for this island, invisible till lately. Such are the stubborn facts which may be adduced in proof, not only of the very rapid growth of coral, but also of the formation of islands from it, as a necessary and observed consequence. The growth of coral alone may not produce this effect other aiding circumstances may intervene. BOCCHONE and MARSIGLI have remarked, that, when coral meets with stone, coarse sand, or any other substances, it seizes them firmly, and speedily includes them within a strong extension of its close ramifications. These collections in seas, subject to frequent storms and agitations, must be considerable, and promote, in no small degree, the elevation of islands. Earthquakes are very frequently felt on this island, and on the contiguous ones. Several shocks are sometimes experienced during the course of a month. It is observable that this tremendous phenomenon, in its progress, undulates the space it moves, or travels, under, and that the concave parts of these undulations open into fissures when the motion is violent. It is not improbable but that such openings take place under shoals, or immediately contiguous to them. In this case, to preserve the equilibrium, it seems reasonable to suppose that the surrounding sand and substances will rush in, hurried along by the general movement, in a greater quantity, from the degree of momentum impelling them, than what occupied the space of the fissure when at rest. These hiatus take place only on the side of the undulation from which the earthquake proceeds, and the sand on that side, now inclining to rest, after having experienced the shock, but still possessing a tendency to move in the direction of the earthquake, will naturally fall into

into the hiatus opened for its reception, before the undulation can reverberate into its original position. Hence the shoal, or island, will be in some degree raised, by an effect similar to that of a lever, though by different means. These islands and shoals, being further removed than other parts exposed to the shock, from the subterraneous or submarine crannies or channels in which the earthquake acts, will, of course, resist its action more than parts possessing less incumbent weight. The undulations will, therefore, meet with more resistance, and deposit a greater quantity of sand than in situations resisting less. In the formation of islands, from coral and sand, as soon as the sand appears above the surface of the water, birds carry roots and various seeds attached to them, for the construction of nests hence the speedy appearance of bushes and trees. Instead of supposing with some, that the numerous islands on this coast have been formed by the violent convulsions of nature, occasioned by earthquakes, which separated them from the continent, it is more reasonable to suppose their formation on the above principles, and chiefly by coral more especially, when we consider that the depth of water between many of these islands and *Sumatra* is unfathomable. The numerous clusters of islands in the eastern seas, from 36 to 16 degrees east longitude, are all supported by bases of coral, and surrounded by shoals emerging from the surface, or pushing their conical frusta into a new element. Experience has ascertained the formation of islands from coral it is not altogether conjecture to suppose that various groups of islands, in the great eastern Archipelago, will, in process of time, become continents, or insular tracks or spaces of land. On the coast of *Coromandel*, in the immediate front of *Madras*, exposed anchorage has produced, and produces annually, lamentable accidents, attended with much public detriment. The position of a sheltering island in that situation would be an object of national benefit, and private safety and advantage.

advantage. To attempt to effect this, a considerable quantity of coral might be transported from this coast, at no great expence, and sunk, with stones and other substances, in seven, eight, or eleven fathoms of water. In the course, probably, of forty or fifty years, an island might be formed by the growth of this substance. This is a long period to look forward to for the benefit of futurity, but from what I have, from my own observation, inserted in this paper, I am convinced of the practicability and success of a scheme, which many will treat as chimerical and visionary, while others, more thinking, will see the utility of the design and probability of success, but it will be deterred by the difficulty and tediousness which would attend the execution.

REMARK BY THE PRESIDENT

It seems at length to be settled among naturalists, that corals and corallines are the cretaceous habitations of animals, and one of the links in the great chain of nature. The idea of making islands for the protection of ships at anchor, is very sublime, but it might be feared, that very dangerous reefs of coral would be formed, before an isle could appear above the water: an artificial embankment of coral might, perhaps, on some coasts, be a powerful barrier against an encroachment of the sea.

II. 3.

ON THE COPPER OF SUMATRA.

I HAVE the satisfaction of laying before the *Asiatic Society* a specimen of copper-ore, the production of the island of *Sumatra*. It is found on and in the hills of *Mucchy* near the sea, between *Annalaboo* and *Soosoo*, to the north of our extreme English settlement of *Tappanooly*. The soil, which generates the ore, is a mixed loam, consisting of clay, small stones, and red sand, founded on an under-soil of soft rock, intersected with veins of this useful substance. The space affording the ore is considerable, extending above a degree in length, and further east, or into the country, than has been yet ascertained. A considerable quantity of ore is annually collected on the surface of the hills, to which the indolence or ignorance of the inhabitants, at present, confines their search. Its being found on the surface, may probably be ascribed to the effects of earthquakes, which are very prevalent on this coast, and over the island in general. The natives, from inexperience, are incapable of conducting a mine, and pursuing a metallic vein. They are content with excavating the ore, till their labour is interrupted by the flowing of the water, which soon takes place in a country subject to heavy rains throughout the year. As many of these veins widen as far as they have yet been traced, it is more than probable that these hills contain inexhaustible mines of this metal. The ore, by repeated smeltings, and other operations to free it from its sulphur, has been reduced to a metal, and then found to include a considerable proportion of gold. As no part of the world contains

a greater

a greater quantity of this latter metal than *Sumatra*, in proportion to the area it occupies on the globe, it is probable that the discovery of gold mines would attend the establishment of copper ones in the hills of *Amalaboo*. This is so much the more probable, as metalline stones, of various kinds, and which the *Malays* regard as sure indications of a soil affording gold, are found on these hills, independently of the consideration, that gold-dust is collected in the immediate neighbourhood, and in the interior country, contiguous to the hills yielding the copper-ore. It is singular, that the same method of rough smelting, which is practised at *Goslar* in *Germany*, should be in use among the uncivilized inhabitants of *Sumatra*. The *Sumatran* method possesses more ingenuity, and is, at the same time, more simple. An undemonstrated knowledge of the plainest and most obvious principles of science, is congenial to the most rude as well as to the most civilized conceptions, and the advantages which the talents of *born genius* have conferred on *Europe*, are by no means a conclusive proof of the inferiority of intellect which the fortunate inhabitants of *Europe* liberally bestow on their less enlightened brethren of the *East* and *West*. That "time and chance happen unto all things under the sun," is a truth that amounts to a voluminous disquisition on this subject. But to return. The ore-gatherers chuse a level spot of hard clay, which they divide into equidistant points, by lines intersecting each other, and laid off equally on two sides of a square. These points, included in the square space, they surround with circles, of which the points are the centres. The circles are inverted bases of cones, excavated to receive the fuzed metal. The smelting space is now covered with wood, charcoal, and other combustible matters, and the ore is distributed among these admixtures. The melted ore is received into the formed holes, leaving the scoriae or recrement above. The metal, still requiring many smeltings to render it fit for use, or perfectly malleable and ductile, is taken out in the form of pointed cakes, and sold.

for twenty *Spanish* dollars per *pecul*, or five pounds sterling for 133*½* pounds avoirdupois weight. The natives are particularly careful in preventing accidents, for, previously to fusing the ore, they heat the ground to a great degree, in order that all the water near the surface may be absorbed, or made to exhale, having experienced, I imagine, that copper when in a state of fusion, meeting the smallest quantity of water, will fly in all directions, with a force destructive of every vulnerable substance within the sphere of its action. I have been informed, that the metal has been elutiated at *Madras* lately, and found to contain very little appearance of any other but of gold. The usual solvents, aquafortis, aqua regia, and spirit of salts, readily dissolve the *Sumatran* copper. A deep green solution is produced, in a very short time, by the action of the weaker acids on the rough ore. The above method of smelting will separate all coarse, mineral, and heterogeneous substances from the metal, but will still leave it strongly impregnated with its peculiar mineral earth. The detaching of this mineral earth is the most difficult and expensive operation attending the refinement and purification of copper, it being frequently necessary to add a proportion of another metal to effect it. This consideration will, probably, prevent a private company from applying for public permission to work these mines, and, therefore, they must remain in their present state, unless the East India Company will order the experiment to be made, from the reports and opinions of such as may be qualified to give them on so interesting a subject. By submitting this short account to the gentlemen of our Society, whose useful researches, will, I hope, produce permanent national benefit, by advancing the knowledge of nature, of science, and of literature, opinions properly weighed, will be diffused among the public, of the advantages that may result from an establishment for working copper-mines on the west coast of *Sumatra*.

III.

ON THE PLANT MORINDA,

AND

ITS USES

BY WILLIAM HUNTER, ESQ

ALTHOUGH the plant, which is the subject of this essay, be not a new species, yet, as it is cultivated to a great extent in Malava, and forms an important branch of the commerce of that province, I hope a particular description of it, with some account of its culture and use, will not be unacceptable to the *Asiatic Society*

IT is the *Morinda* of LINNÆUS. It belongs to the order *Pentandria Monogyna* to his system, and is referred by him to the natural order of *Aggregate*. Here (though it may seem a digression from the subject) I cannot help observing, that LINNÆUS is not altogether consistent to the distinction, which he endeavours to establish, between the *aggregate* (properly so called) and the *compound* flowers. In his *Philosophia Botanica*, § 116 he defines a *compound* flower to be "that which has a broad entire receptacle, and "sessile florets," and an *aggregate* flower, "that which has a broad receptacle, and florets supported on peduncles." According to these definitions, the *Morinda* ought to be placed amoog the *compound* flowers, but in the following section, LINNÆUS makes the essential character of the *compound* flowers to consist in having all the anthers united thus restricting it to his class of *Syngenesia*. This not only excludes the *Morinda*, but ought perhaps to have, strictly speaking, excluded the *Kubus*, *Ira*, and *Ambrosia* and

even, allowing the approximated anthers in these genera to come within the meaning of the definition, it seems unaccountable that the *Nauclaea* (*a*), which appears so well entitled to a place in one of these orders, should be excluded from both.

The Aal is a tree of middling size, the root branched, the trunk columnar, erect, covered with a scabrous bark

Branches from the upper part of the trunk, scattered, of the structure of the trunk

Leaves (seminal) oval, obtuse, entire

(mature) opposite, decussated, ovate, pointed at both ends, smooth,
with very short petioles

Stipules lanced very small, withering

Peduncles, from the axils of the leaves, solitary, bearing an aggregate flower

Calyx common receptacle roundish, collecting the sessile flowers into an irregular head

Perianth most entire, scarce observable above

Coral, one-petaled, funnel-form, *Tube* cylindric, *Border* five cleft, the divisions lanced

Stamen *Filaments* five, thread-form, arising from the tube, and adhering to it through two thirds of their length, a little shorter than the tube. *Anthers* linear, erect.

Pistil *Germ* beneath* *Style* thread-form, longer than the stamens. *Stigma* two-cleft, thickish.

(a) The *Cadam* of the Hindoos

* The *Germ* is four-celled, and contains the rudiments of four seeds.

Pericarp: common, irregular, divided on the surface into irregular angular spaces, composed of berries pyramidal, compressed on all sides by the adjacent ones, and concreted with them, lopped, containing towards the base, a fleshy pulp

Seeds in each berry four, towards the point oblong, externally convex, internally angular

The species here described is called by LINNÆUS *Morinda arborea pedunculata solitaria*, and he gives it the trivial name of *citrifolia*, but the form of the leaves, in all the specimens I have seen, does not exhibit this similitude, as will appear by the inspection of the accompanying figure, which was drawn from nature. There are figures of it given by RUMPHIUS (Herb Amboin vol. 3 tab 99) who calls it *Bancudus latifolia*, and by RHEEDA (Hort Malab. vol. 1 tab 52) who calls it *Cada-pilavo*. In Málava it is called *Aal*, and in Oude it has the name of *Atthy*.

THE plant grows best in a black rich soil, free from stones, in situations moderately moist, not too high, yet sufficiently elevated to prevent the water of the rains from stagnating, and where there is near at hand a supply of water for the dry months. It is sown about the middle or end of June, after the rain has begun to fall. The ground requires no manure, it is ploughed twice, or, if tough and hard, three times. The seed is sown, either broad-cast, or in drills, according to the fancy of the cultivator. The ground is then ploughed over again, and harrowed. In one *beegah** of ground are sown, from $1\frac{1}{2}$ to $2\frac{1}{2}$ muns† of seed. In fifteen or twenty days

* A measure of one hundred cubits square

† The *muri* of this country is sixteen *meri*, of eighty rupees weight each

the young plants spring up. The field is then carefully weeded, and the grounds stirred with an iron instrument. This operation is repeated, at proper intervals, during the first year, and in the dry months of that year (that is, from *January* till *June*) the ground is three or four times laid under water. After the first year, it requires no farther care. In a year the plant grows to the height of one or two feet, according to the quality of the soil. In the third year, sometimes in the second, it bears flowers and fruit. The flowers appear in *June*, and the fruit ripens in *September* or *October*; but the fruit of those young trees is not used for seed, as it is said not to produce vigorous plants. In the months of *February* and *March* following the third year, the plants are dug up. They dig, to the depth of three or four feet, the root, which is the only valuable part, extending so far into the ground. The wood of the plant is only used for fuel. Sometimes the necessities of the husbandman oblige him to dig the crop in the second, or even at the end of the first year, but the root is obtained in much smaller quantity, and less rich in colouring matter than if it had remained the regular time. The crop is not much affected by the excess or defect of the periodical rains. When it is dug at the end of the third year, one *beegah* yields from four to six *mounds** of the root in a wet state. These are spread on cloths, and dried in the sun, for three or four days, at the end of which time there remains of dried root, one third or one fourth part of the original weight.

As the colouring matter resides chiefly in the bark of the root, the small twigs, which contain little wood, bear a higher price than the larger pieces. Therefore the roots, when dug up, are separated into three kinds, coarse, medium, and fine. The coarse sell for one rupee per *mun*, the medium

* The *mound* contains twelve *mus* of this country's weight.

two or three rupees, and the fine four rupees per *man*, or four seers for a rupee.

In particular fields they leave trees for seed at the distance of four, five, or six cubits. In six years they yield fertile and vigorous seeds. The trees, when of that age, are about six inches in diameter, and twelve feet high (branches included), but they continue fruitful for many years, and are said to grow to a size not much inferior to that of a *Mango*-tree. When the fruit is ripe, it is gathered, laid in heaps on the ground, and covered up with straw, or other rubbish, for fifteen or twenty days, in which time the pulp rots, and is consumed. It is then put into a basket, and washed, by repeated effusions of water, to separate the seeds, and free them from the remains of the pulpy matter. The husbandman, who cultivates this plant, generally takes care to have on his ground a sufficient number of trees for seed. If he is unprovided with those, he may purchase the seed, immediately after it is prepared, for four or five rupees the *man*, but if he neglects to purchase till the season of sowing arrives, he may be obliged to pay at the rate of two seers per rupee.

In the ground on which *Aal* has grown, they sow wheat, or other grain, for five or six years, and, it is observed, that the grain sown on this ground thrives remarkably and while the trees left for seed continue small, grain of any kind may be sown in their interstices, but *Aal* would not thrive there.

This expence to the cultivator varies considerably in different villages. In one, where the plant is cultivated to considerable extent *, the patel, or

* *Kheldas*, $7\frac{1}{2}$ miles from *Ojaria*.

zemundar, gave me the following account of the expence attending the cultivation of one *beegah*

To the Collector of the District	-	-	Rs	10
To the Patel,	-	-		1
To Writers, &c. Servants of the Patel,	-	-		0 10.
To digging up the Root*	-	-		15

Total,				26 10

Now supposing, agreeably to the foregoing account, that a good crop is six, and a bad one four, *mauns*, that each *maun* yields, when dried, $3\frac{1}{2}$ *mans*, and that in this dried root, the coarse at one rupee, the medium at two, and the fine at four, are in equal quantities, then, the value of the good crop will be forty-nine rupees, and that of the bad one 32, 10, 8. The first of these leaves Rupees 22, 6, the other Rs 6, 0, 8, from each *beegah*. The medium, Rupees 14, 3, 4, we may estimate as the profit of the husbandman, out of which he is to maintain himself and his cattle for three years. In this account I have not included the expence of seed, as the cultivator is generally supplied with it from his own trees. Had he been obliged to purchase it, we must have added eight rupees to the expence of cultivation but, as the crop sustains no damage by remaining in the ground, the cultivator can dig it up at his leisure, and therefore he generally saves by his own labour great part of the expence above stated for digging.

In another village †, the cultivator has the land on much easier terms, only paying three rupees for the crop, or one rupee yearly, to the collector

* For digging a space 16 cubits long, and $3\frac{1}{2}$ cubits broad, the labourers are paid 4½ pice, at fifty to the rupee

Therefore, the other expences being supposed the same, the crop only costs him Rs. 19, 10, besides his own maintenance and that of his cattle.

BESIDES the consumption of the root in the manufactures of this province, large quantities of it are exported to *Guzerat* and the northern part of *Hindostan*. I have not been able to learn the exact value of this exportation, but have reason to believe that it amounts, annually, to some lacs of rupees. The dealers, who come from those places (especially *Guzerat*) to purchase, advance money to the cultivator, and, when the crop is ready, buy it, either on the ground, or after it is dug up. In the first case, they dig a small portion of the field, and, according to the quantity it yields, form a judgment on the value of the whole.

THE method of dying with this root is as follows. The cloth to be dyed is thoroughly washed and scoured, with an extemporeaneous kind of soap-lie, made by mixing the oil of sesamum with the fossil alkali. Then, supposing the cloth (which is generally of a thin texture) to be twenty-six cubits long, and one cubit broad, the quantities of ingredients will be as follow.

TAKE of large *Her* * in powder, three ounces. Mix it well with four pounds of water. In this the cloth is to be thoroughly wetted, so that the absorption of *Her* may be as equal as possible. It is then to be squeezed, and spread in the sun for about forty-eight minutes, to dry, taking care that no drop of water fall upon it. The cloth, when dried, is of a cream-colour. It is kept in this state for four or five days, that the particles of the *Myrobalan* may be more firmly attached.

* The *Chebul*, *Myrobalans maxima*, *longa*, *angulata* C. B.

Then take of powdered alum, two ounces, dissolve it in lb ij of water. Wet the cloth thoroughly and equally in this solution. Wring and strike it gently on a smooth stone, then spread it, for twenty-four minutes, in the sun, to dry. When dried, it is of a pea-green colour. When perfectly dry, it is kept for four days, and then washed in cold water. To the manner and degree of washing, we are told, great attention is to be paid, as an error, either in excess or defect, would spoil the colour. When washed, it is dried in the sun.

The cloth thus prepared, is ready to receive the colour, which is prepared in the following manner. Put 3*ij* gallons of water into an uncovered copper-vessel, and set it on a gentle fire. When it is something more than lukewarm, put in the cloth, along with the colouring ingredients, which have previously been thus prepared. Take of *Aal*, from one to two seers, according to its quality, powder it, and rub it with two ounces of oil of *Sesamum* to each seer. Add of the flowers of *D,howry*, * one-eighth of a seer

to

* A shrub, which grows wild on the hills, and on the banks of the rivulets, where they are formed of a grassy sod. The flowers are of a beautiful red colour, and are gathered both for the use of the dyers and of the apothecaries, who give an infusion of them as a cooling medicine. They lose their colour in drying, and only yield a slight brownish tincture to water, so that the benefit derived from them in dying with *Aal*, seems to depend merely on their action as an astringent; which is confirmed by the substitution of *P,arwad*, a strong astringent, as an equivalent to *D,howry*. The natural character of the *D,howry* is as follows:

CAL. *Persian* one-leaved, persistent. TUB., bellied, Border, six cleft, the divisions lanced, erect.

COR. Petals six, lanced, acute, erect, a little longer than the calyx, arising from the edge of the tube, between the divisions of the calyx.

STAM. Filaments twelve (in some ten or eleven) awled, erect, longer than the calyx, and arising from it. Anthers kidney form, incumbent.

to each seer of *Aal*; or, instead of *D,lawry*, one ounce and a half of *Purwads**, in powder.

THE cloth and colouring ingredients are continued on the fire, with a gentle heat, gradually increased, for about three hours. Towards the end, the water is made to boil strongly. By taking up a little of the water, and examining its colour, as it is dropped in the vessel, they judge of the success of the process. It ought to be of a clay-colour, or a little deeper. If it proves very red, the colour would be spoiled, and the remedy is, to add a larger proportion of *D,lawry*. During this process, the cloth is continually moved, by lifting part of it with a stick out of a vessel, beginning at one end and proceeding to the other. It is now taken out, wrung, and dried. After which, being washed in river-water, the red colour is complete. No 1

FIST GERM oblong, two-furrowed. *Style* awl-shaped, ascending the length of the stamens. *Sigma* obtuse.

PERIC Capsule, ovate, acute, two-furrowed, two-celled, four-valved.

SEEDS numerous, very small; *receptacle* oblong.

LEAVES, opposite lanceolate.

Here the oblong shape of the capsule and its two cells agree with the *Lybrae*; the divisions of the calyx with the *Ginora*. LINNAEUS (Ph. Bot. 5 177, 182, 183) alleges that the calyx is more to be depended on than the Pericarpium in ascertaining the genera of plants. Therefore, agreeably to these aphorisms, I should be inclined to refer the *D,lawry* to the genus *Ginora*, but it may perhaps be considered as a new genus to be placed in the system between the *Lybrae* and *Ginora*.

* A kind of gall nut, containing the exuviae of a small insect, found on a species of the *Mimosa*. In *Milava* it is called *Purwads*, in *Morwar*, *Saccon*, and in the country about *Mongben*, *Purwads*. This being a stronger astringent, we are told that an exact attention to the proportion of it is more necessary than to that of the *D,lawry*.

is a specimen of this colour, which is valued more for its durability than its beauty.

To make a Dark Purple, or Chocolate Colour.

TAKE of martial vitriol one ounce, dissolve it in two pounds of water, and clear the solution by decantation. Mix, with a quantity of the above-described colouring decoction, sufficient to wet the cloth, such a proportion of this martial solution as will give the tint required. This is judged of by inspection, as the cloth will be of the same colour with the mixture. The cloth being taken out of the colouring decoction and wrung, is to be dipped into this mixture, and thoroughly wetted, so as to absorb the colour equally and completely. Then, being dyed and washed, its appearance resembles that of the specimens No 2 and 3, but the tints admit of a great variety, according to the proportions of the martial solution. Both these colours are very durable, being little affected by washing. One of the quarters of Oujem, named Jeysingpoorah, is inhabited by dyers, who consume great quantities of this root. Their printed and stained cloths, besides supplying the domestic consumption, are exported to Guzerat, and other provinces.

IV.

ON THE INHABITANTS OF THE HILLS
NEAR RAJAMAHALL

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A SLIGHT knowledge of the language of the natives of the hills, in the districts of *Bhigalpur* and *Rajamahall*, having brought to my observation that their customs and manners, as well as their language, differed from those of the inhabitants of the neighbouring plains, I have, for some time, endeavoured to acquire a good account of them, from the belief that, notwithstanding their connexion with and dependence on our government, they have been little known beyond the limits of the hills. The following description does not contain much more than a bare translation of what was written by the best informed mountaineer whom I have met with I have spared no pains to render it faithful, for there alone it can have any merit My information has been derived through a *Soubadar* of the *Rangers* (whom the late Mr CLEVELAND had instructed in writing *Nagree*) as far as relates to the inhabitants of the hills in the three *Tuppahs* of *Mudjeway*, *Ghurry*, and *Munnudry* The first is to the south west of *Rajamahall*, extending as far as *Sicrigully*, the second is thence in a westerly direction, as far as *Shatukabad*, and the third lies to the south of *Ghurry*, from whose people those on the borders of *Bheerboom*, and south-east of *Rajamahall*, differ in many respects. Whatever was material in these latter *Tuppahs*, was related by a *Soubadar* from that quarter to the one who can write, and both attended me in translating them The *tuppahs* of *Mudbun*, *Pyer*, *Chitoleah*, *Barcope*, *Putsundaw*, *Jumnee*, *Hurnah Par*, *Dumsai*, *Kuneallah*, and others, have customs also peculiar to themselves. These I shall endeavour to ascertain.

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THE following relates immediately to the *Tuppahs* of *Mudgetway*, *Ghurry*, and *Menudry*, from which may be collected what ideas the inhabitants have of one Supreme Being, of a future state, and of transmigration. It is true they worship many gods, but these are considered inferior to, and the medium of adoration of, one all powerful and omniscient Being, whom they call *Bedo Gossair*, or the Great God. Their opinions on the metempsychosis, it is probable, have been borrowed from the *Hindus*, though they profess no particular veneration for the cow, or any other animal, for they believe it a punishment when God ordains a human soul to transmigrate into any of the brute creation, and it is also a received opinion, that for certain crimes in this life, souls are condemned to the vegetable world.

THE natives of the hills in these *Tuppahs*, having no knowledge of letters, or of any character, have a traditional story, brought down from father to son (but in what age it was received, is now not known) that the *Bedo Gossair* made heaven and earth, and all that is therein. To people the latter, seven brothers were sent from Heaven. At first they remained together, when the eldest brother was sick, the six younger collected all manner of eatables, which they agreed to divide, and to separate, to go into different countries, one, a *Hindu*, got fish and goat's flesh in a new dish, for his share, a second, a *Mussulman*, was allotted fish, fowl, and every sort of flesh, except hogs, for his portion, in a new dish also, a third, *Kirwary*, a fourth, *Keer-rateer*, got hog's flesh also in a new dish, a fifth, *Kawdeer*, got all sorts of flesh, fish, and fowl, in a new dish, a sixth, who was destined for a foreign country, got some of every sort of food, in a new dish, and after his departure, it was not known what had become of him, till *Europeans* made their appearance, when, from their manner of living, it was concluded that they were the descendants of the sixth brother, the seventh, *Mullare*, who was

the oldest, and sick brother, got some of every kind of food, but put them in an old dish, for which he was considered an outcast, and ordered to inhabit these hills, where, finding neither clothes nor subsistence, he and his descendants necessarily became thieves, in which practice they continued, till such time as Mr CLEVELAND wisely conciliated their attachment to the English government, by a liberal generosity and munificence, while he entered their hills unattended, putting the utmost confidence in their faith ; and made engagements to settle on their chiefs an inconsiderable monthly sum, in consideration of their good and peaceable behaviour and obedience, to which they have rigidly adhered, and this, it is related, put an end to their predatory incursions and marauding. The *Kurnary* cast crossed the *Ganges* and lived in tents, having no settled habitation. The *Hindu* and *Mussalman* remained in this country. The *Kawader* went to the south, and this remained doubtful, till a party of them came to dig a tank for Mr CLEVELAND. The *Kurratier* went to the hills north of the *Ganges*. I cannot learn what names the brothers had, nor how they were provided with wives, to increase and multiply the creation of women does not bear any part in this defective account, which proceeds to relate, that God the Creator directed certain wombs to be fruitful. His commandments are, that men should give to such as will receive ; and that, in like manner, others would give to them. By labour men must live, for this their hands were made, eyes were given to see with, the mouth to speak good and bad, as well as to eat sweet and sour, and the feet to walk. Abuse nobody without cause ; neither kill nor punish, without a crime, or God will destroy you. These commands being sent, certain wombs were fruitful. But some men forgetting these divine ordinances, abused, beat, and oppressed each other without cause, when, the measure of their crimes being full, he summons them to his presence, the messenger carries sickness and death. On the sinner's

appearing before God, being charged with forgetting his commandments, he is bound and cast into pits of maggots, or pits of fire, where he is to remain eternally.

WHOEVER keeps God's commandments, behaves well in all respects - he will neither injure, abuse, beat, nor kill, any person, nor seize their effects, nor plunder them, nor waste their grain, nor their money, nor their clothes, nor quarrel with any one, but praises God morning and evening, which last, the women also do. He will be charitable, clothe and feed the poor, and observe the festivals in God's name, with the proper expence of grain, money, and clothes. God, for the just disposal of the goods he had granted for keeping his commandments, and praying, summons the righteous person into his presence, on his having enjoyed this world long enough. On his appearance, he is asked how he dealt with men, and how they behaved to him. Having rendered his account, as well of what he bestowed and received as of what he ate, that he injured nobody, but praised God morning and evening.—God answers, " I saw that you behaved well, and kept my commandments, I will exalt you, in the mean time remain with me " After a short sojourn, he is sent to earth, to be born of woman again, and to be a *Raja*, *Dewan*, or *Cuttawali*, with abundance of worldly goods and territory. Should he forget to praise God in his exaltation, and give not meat to the hungry, but oppress the poor, God, in his wrath, will destroy him, snatch him away, and accuse him of neglecting his commandments, and forgetting to praise him. He will then cast him into a pit of fire, where, should not his punishment be eternal, he will not allow him to be born again of woman, but to be regenerated in the shape of a dog or a cat.

WHOEVER

WHOEVER offends in the presence of God, is dismissed to this earth, to be born of women, either blind, lame, or in poverty, never to have house, clothes, or victuals, nor any thing but what is begged from door to door. Should a person possessed of rank, grain, clothes, land, and every thing he could want, forget God's commandments, seize and plunder from others,—God, in his wrath for the abuse of the good things which he had bestowed, will make him poor and a beggar, and having decreed that he shall remain a certain time on earth for his punishment, this being fulfilled, death snatches him away, and he appears to the presence of God. God orders a man to kill another, and he kills him, yet lives happily and content, but no one must, from his own will and pleasure, destroy a fellow-creature, or God will destroy him. God orders a man to beat another, and he beats him, but whoever punishes a fellow-creature, without divine commands, the Supreme Being will direct a third person to punish the offender. No person shall abuse another without God's commands who ever disobeys, will in like manner be abused by a third person.

WHOEVER without God's commands injures his neighbour, may expect divine retaliation. Should a man, seeing his neighbour's property, plunder or steal it, the BEDO GOSSAKH will either order him to be punished in like manner, or some of his family to die. Should you see a mao lame, mock not at his misfortune, lest God should make you lame, or punish you in some other manner. Laugh not at a man who has the misfortune to be blind, or God will afflict you in like manner, or some other way. It has pleased Providence that a man should have his back broken, who ever laughs at or mocks him, will be afflicted in like manner, God will make him blind, or lame, or poor, therefore mock not the unfortunate. If God had made the lame, the blind, the broken-backed or poor, to be laughed at, he would

have pardoned such as mocked them ; but as their defects are punishments, those who are perfect should not deride their misfortunes. Those on whom God bestows grain, riches, land, and power, ought to be charitable, and to cherish the unfortunate. Should they, notwithstanding their wealth, be uncharitable, Providence will punish them, by rendering them poor, and reducing them to the necessity of working for their bread. When great men are charitable, God will protect them.

God directs the poor to the rich man's door to beg ; should the latter uncharitably refuse to relieve their wants, Providence will be displeased at the abuse of the good things which he had bestowed, and will render the rich man poor, helpless, and destroy his family. God can exalt the poor man. Such are the dispensations and power of Providence. A man robs and kills another, and casts the body away to conceal the murder from the relations of the deceased, who conceive their kinsman to have been killed by a snake or a tiger, but God cannot be deceived vengeance will fall on the murderer, or his relations, he, or some of them, will fall a sacrifice to a tiger or a snake, divine vengeance will surely await him. Whoever kills a tiger without divine orders, will either himself, or some of his relations, fall a sacrifice to a tiger.

FROM such superstition, the natives of the hills are averse to killing a tiger, unless one of their relations has been carried off by one, when they go out for that purpose, and having succeeded, their bows and arrows are laid on the body of the animal, they invoke God, and declare that they killed it to retaliate for the loss of a relation. Vengeance thus satisfied, they vow not to attack a tyger, without the provocation of losing a kinsman.

God sends a messenger to summo a person to his presence Should the messenger mistake his object, and carry off another, he is desired by the Deity to take him away ; but as the earthly mansion of this soul must be decayed, it is destined to remain midway between heaven and earth, and never can return to the presence of God. Whoever commits homicide without divine orders, can never appear in the presence of the Deity , his soul is destined to remain mid-way between heaven and earth Whoever is killed by a snake, as a punishment for some concealed crime, can never appear in the presence of the Deity , his soul is doomed to remain mid-way between heaven and earth , yet Gon will destroy the snake but, if it acted by Divine orders, Providence spares it. Should a rich man call the poor, with promises of giving them alms, and not perform them, and should the poor exhort Gon to make him poor too, for his uncharitable deceit, Providence will either punish him in this way, or some other ; but by penance and prayer he may be pardooed As a man marries a woman at a great expence, should she be guilty of infidelity, and conceal the sin she had committed, which is the greatest aggravation of it, Gon will be incensed and punish her, by making her sick, lame, or blind Whoever commits fornication and conceals it, may dread divine vengeance To avert falling sick, or being otherwise punished for his crime, he must avow it, pray to be forgiven, and sacrifice a goat at *Dewarry Nad*, the shrine of their household God, the blood of which is to be sprinkled over the linen, to purify him. If a man casts a lustful eye on his neighbour's wife, God will punish him, for it is forbidden. Whoever takes poison and dies, can never go to Heaveo , his soul will be doomed to wander eternally , he will be convulsed and vomit, with no more than the daily allowance of as much rice as can be put on an *aura*-leaf (which is smaller than the *samarind*-leaf) and as much water. Whoever hangs himself, shall never appear in the presence of Gon , his soul will have no place

assigned it, but he will be doomed to wander eternally with a rope about his neck. Whoever drowns himself, shall never appear to the presence of God, his soul shall remain mid-way between heaven and earth, and God has ordained, that whoever drowns himself, shall be doomed to work eternally, day and night, without intermission, to make the crooked banks of a river straight, where the stream ever undermines, as fast as the labourers incessantly work. Whoever, undirected by the Deity, has the misfortune of being killed by a fall from a tree, his soul is received into the kingdom of heaven, but not admitted into the presence of the Almighty it is, however, served with such things as are provided for the righteous. Whoever receives favours, and is guilty of the ingratitude of abusing his benefactor, will not be well treated to other places, God will expose him to misery for his ingratitude. Whoever falls in battle, is well received by God, and fares sumptuously, for the Deity is pleased with his fate. Whoever is lost travelling by water, is well received in Heaven the Deity will take him unto himself.

THE *Demauno*, or *Dewassy*, seems to be more of an oracle than a priest Those who wish to initiate themselves, represent that, by dreaming, they can foretell what will happen, that the *BEDO GOSSAIN* appears to them nightly, and braids their hair, from which it grows remarkably long, they must never cut it, as it is believed, if such an act did not prove fatal to them, that, at least, their dreams would no longer be prophetic. This oracle foretells to one person, that he shall have a plentiful harvest, to another, that he shall become rich, a third is told, that he is to fall sick, a fourth, that he shall die, a fifth, that he shall be successful in hunting A family is admonished to sacrifice and pray at a certain shrine, to appease an offended God, he prophesies when there will be a scarcity, and when it will rain Thus, his predictions being verified, the people have faith in them, and one, who is sick,

sick, attends him for advice, which is afforded the following morning, when the *Demavud* has dreamt of the case, or God, having appeared to him in his vision, informed him what will be the fate of the patient, and what he must do to get well. Another informs him, his crops are not so good as usual, and desires to know which God is offended, and what he must do to appease him. A sportsman informs him, that he is not so fortunate as usual, and seeks to know what he must do to be so. Some ask, at what shrine they must make their offerings. All who consult this oracle must make a present, and return the following day for an answer. On the first full moon of *Jamuary*, after his inspiration, he sallies out of his house, runs about, and pretends to be frantic, but neither injures nor speaks to any one. He approaches the door of his chief, and makes signs to have a cock, and a hen's egg, brought to him; the latter he immediately eats, and wrings off the head of the cock, sucks the reeking blood, and throws away the body, whence he proceeds to unfrequented rivers and jungles, where he remains seven, or nine days, and is supposed to be fed by the Deity, whom he represents on his return, and when his reason is restored, to have treated him sumptuously, that God had sometimes seated him on a large snake, and, at others, made him put his hand into the mouth of a large tiger, but without fear of any danger. On the *Demavud*'s emerging from his retreat, he brings with him a large *plantam* tree, which he had torn up by the roots, and places it on the roof of his house, then returns, and brings in a large *seedee*-tree, again, brings in a *muckmun*-tree, and lastly, a *seego*-tree, all of which, to the astonishment of the people, he, without human assistance, places, in like manner, on the roof of his house. It is to be understood that these trees are too large for one man to pluck from their roots and carry, and that the *seego*-tree is full of thorns, which cannot be touched with impunity; but, by divine aid, he effects these wonders. On the night of his return, he represents,

sents, that the BEDO GOSSAIH appears to him in a vision, and desires him to sacrifice a pigeon or a cock to him, with prayers. Accordingly, in the morning, having recovered his senses, he takes some oil to besmear the trees he had deposited on the roof of his house, and some red paint to make streaks on them, over this he scatters some undressed rice, and lastly, sacrifices the pigeon, so that the blood may fall on the trees, and, during this ceremony, he prays.

HENCEFORWARD he must never sit with or touch any woman but his wife, should any other woman even touch him by accident, it is supposed his predictions would fail, or, should he marry more than one wife at a time, the people would have no faith in him. Having thus passed his novitiate, and obtained the reputation of a good *Demawo*, he is invited by his chief to the buffalo-festival, who puts round his neck a red silk thread, with five cowries strung on it, and binds a turban on his head, beseeching God that he may have power of restoring health to the sick, exorcising such as are possessed of devils, and that all his predictions may prove true. In this manner he is ordained, and officiates at the festival. A *Demawo* drinks of the reeking blood of all offerings sacrificed while he is present. He must never eat beef, or *dha*, nor drink milk, for, in doing so, his prophecies would fail. There is no fixed number of *Demawos* for the duty of a village. Some have several, while others have none. The *Maungy* of every village sacrifices a buffalo in either the month of *Maug* or *Phagan*, annually. He fixes a day, and desires his vassals to attend, each of whom contributes a portion of grain, oil, or spirits for the festival provisions being collected on the day appointed, the *Maungy* directs his followers what to do. Some cook, others go and cut a large branch of the *muckman* (or *sacca*) tree, which is brought, and planted before the *Maungy's* door, one of whose family carries out the *hun-done*

dane (a sacred stool, with four feet) and places it under the shade of the *muck-mun*-branch, washes it, rubs it with oil, spots it with (*sowndra*) red paint, and binds it with a thread of red silk, the *Maungy*, having made his *salam* to the stool, sits on it, the *Demazzo*, or priest, sits on the ground to his left, and prays first, after which he gives the *Maungy* a handful of unboiled rice, which he scatters close to the *muckmun*-branch, addressing himself to God, to protect him and his dependents, and to be propitious to them, adding a vow to perform and hold this festival annually During the time of praying, the *Maungy*'s drums are beating, that all within hearing, who are possessed of devils, may run, and pick up the rice to eat having gathered it all, they are seized, bound, and taken to a small distance from the altar, when the buffalo, with ropes on all his legs well secured, is hamstringed by the *Maungy*, to entertain his barbarous followers, in order that they may be diverted by his struggles and exertions, in forcing him to the *muckman* branch, where his head is cut off, and the persons possessed of devils, who were bound, are set at liberty, and immediately rush forward to take up the buffalo's blood, and lick it while reeking When they are supposed to have enough, they are besprinkled with water, which renders them completely exorcised, and they retire to a stream to bathe the adherents come forward with their offerings of rice, oil, and spirits, and receive a blessing from their chief, who has the buffalo's head dressed, and eats it with the priest and musicians the *kundone* being taken into the house, puts an end to the ceremony of the day. The next morning the adherents assemble to feast on the buffalo and other things which the *Maungy* furnishes. At the expiration of five days a fowl is immolated, and the blood sprinkled on the *muck-mun*-branch, which is taken up, and with the horns and some of the bones of the buffalo, is fastened on the roof of the *Maungy*'s house, where they are left to decay In some places stages are erected for these sacred fragments,

at the north-east angle of the *Maungy's* house. The chief *Maungy* of a *tuppah* (which is a number of hills that have villages on them) whose authority is acknowledged by the *Maungies* of the several villages in his limits, appoints a time annually to pray, that they may have rain enough for their crops. This festival may be held in any month in the year, except *Poos*, in which they neither marry, build a house, nor undertake any thing of consequence, considering it an unlucky month. The chief of the *tuppah* having determined on a day, sends an *arrā* to the *Maungy* of each village, desiring him to attend with twenty or thirty of his men by the day fixed on when assembled, they all repair to the place established without the village, for the ceremony of the *Satane* having planted a small branch of the *chagulno* (*bale-tree*) the head of a goat is severed with a sword, that the blood may fall on the leaves of the *chagulno* the *Satane* is then resorted to, to ascertain what chief will be most acceptable to the God of Rain, to pray on this occasion, this being settled, a day is named for prayer, upon which all the *Maungies*, with their vassals, assemble at their chief's, before whose door the *Demauno* and the *Maungy*, on whom the *Satane* election had fallen, pray after which a buffalo is sacrificed, and the same forms observed as described in the buffalo festival it continues as long as the provisions which were presented by the several *Maungies* last. The danger of a scarcity is thus supposed to be averted, and that their crops will flourish.

WHEN a *Maungy* has established a village, should a tiger infest it, or the small-pox, or any plague prove fatal to its inhabitants, it is supposed that RUXEY GOSAIN is desirous of having a shrine raised. The *Satane* is resorted to, to confirm the supposition, and the *Demauno* consulted. On both agreeing, these steps are sufficient to stop the ravages of any beast of prey, and

and to avert any further fatality from the small-pox. Thus relieved, the *Maungy* calls the *Demawno* to get *ruxy* (a sacred black stone) for him, in compliance with which the *Demawno* has a vision, in which the Deity appears to him, and informs him where the god *RUXEY* is to be found, directs him to the spot, and desires him to raise him with his own hands, and to present him to the *Maungy* in the morning. The *Demawno* gets a branch of the *seedee* (a tree peculiar to the hills), benjamin is burned before the *Maungy's* door, which he smells, and proceeds, followed by some men to the spot where *RUXEY* is to be found, having smelt the godhead, he directs the persons who were in attendance to dig for him, to facilitate their work, water is thrown, to soften the earth, and when *RUXEY* is discovered, the *Demawno* takes him up, and carries him to the *Maungy*, who immediately sets out, with his divine present, in search of a large tree, about half a mile, or less, from the village, under the shade of which he places it, and encloses it by a fence of stones, and a hedge of *sege* a fowl and a goat are sacrificed to the god, whom the *Maungy*, or some other acceptable person (and it is the object of the *Satane* to find out who is most virtuous and most worthy to address the god) worships and retires.

At any other time when this god is worshipped, a fowl and goat are sacrificed, and the *Maungy*, or person who prays, is attended by two drummers and an old man, who has no wife, and, from age, has no connexion with women, to partake of the offerings with the preacher, of which others, who have forsaken all connexion with women and drinking intoxicating liquors, may share. Whoever violates this vow by drinking or cohabiting with women, it is believed, will become foolish, yet he may recover his reason by asking pardon of the god, and by offering a fowl and goat, with

prayer in sacrifice at the shrine, but he can never be a *Huk Moko*, or an elect eater, again.

Idle men and women must not approach or profane the place where RUXEY is deposited, by spitting towards him, or by doing any uncleanly act near it should any person, through forgetfulness, or ignorance, be guilty of any such acts, by spitting, he will get a sore mouth, and other more offensive transgressions are productive of a strangury, or flux, respectively, and these diseases are often considered as the effects of some heedless transgression of the above nature, which is discovered by the *Satans*, or such like proof. their remedy is to give a fowl to the *Maungy*, who makes an offering of it to the god, who is thus appeased. If the patient recovers, well, if not, the friends go to a neighbouring village, to find out, by the *Satans*, the cause of their relation's illness if he is not thus relieved, they go to a second, and, on failing, they consider it as an affliction by the dispensation of the Supreme Being, who will either spare, shorten, or prolong the life of the offending patient, according to his will.

THE *Chitaria*-festival is held but once in three years. The celebration of it so seldom is, probably, from its being very expensive to the *Maungy*, who bears the charge. It is not every village that has a *Chatnad*, though he is considered as the God that presides over the welfare of villages, but, like RUXEY NAD, he is not supposed to be essential to their happiness till the inhabitants are harrassed by some plague or pestilence, when the *Demauno*, on being consulted, informs the *Maungy* that this Deity is desirous of having a *Nad* raised; that effecting this, and worshipping him, will put an end to their misfortunes. The *Demauno* then dreams of the place where this shrine is to be found, in the shape of a black stone, he proceeds in the morn-

ing to discover it, observing the same forms as are described in obtaining RUKKEY NAD, when found, the stone is placed under the shade of a *muck-mun*-tree contiguous to the village, and undergoes no alteration in its form from the chisel.

AMONG the preparations for the *Chitaria*-festival, the *Maungy* must provide a cow and a piece of red silk, previous to the day fixed for prayer. The *Satane*, as usual, is performed, to find out what two of the *Maungy*'s vassals will be most acceptable to the godhead, to pray. This point being settled, and every thing ready, a day is fixed on the eve of this holiday, the piece of silk is cut in two, and one part given to one of the wives of each of the preachers, with whom their husbands have not cohabited for ten or fifteen days previously. The *Demauno Maungy*, *Cutwal*, *Phojedur*, *Jemmadars*, and *Bundareens*, having been invited into one of the preachers houses, the *Demauno* gives water to two *Kaleuars*, one *Dolewar*, one *Mungeora*, and one *Jelawon*, to wash their hands, and these musicians are taken into the house a feast is served, of which all present partake, as soon as the chiefs have thrown a little of each dish away, in the name of CHALNAD I must here digress, to observe, that it is a custom through all the hills, to throw a little of their meat away at every meal, previous to their eating, and the same rule is observed in drinking, the intention of which is, to avert any bad consequence from any devil or evil spirit having defiled it. The *Bandareens*, whose particular province it is at all festivals to serve out the toddy, or spirits, perform that office, and the chiefs, having spilled a little also in the name of CHALNAD for a libation, the party drink and sing all night, in praise of CHITARJAH GOSAIB, invoking his protection, the musicians, or rather drummers, beating at the same time. Should any person sing a different song, he is fined a fowl, which is sacrificed, and the blood

sprinkled over the whole party. During the course of the night, they patrol the village five times, leading a cow with them, in the morning, the *Damuno*, the two preachers and drummers, proceed to *Chahad* with the cow. Having finished their prayers, the cow is sacrificed by one of the preachers, in such a manner that the blood may fall on the shrine a feast is immediately made of the flesh, and all the men who accompanied them from the village, except such as may be disqualified from domestic causes, partake of it. On their return to the village, they send notice of their approach, that the two wives of the preachers, between whom the piece of silk was divided, may take off their clothes and ornaments, and tie the silk round their middles, covering them from their waists to their knees their hair is fastened in a knot on the crown of their heads, and every part of their body which is exposed, is spotted with a mixture made of turmeric, powdered, and the heart, or white part, of *Indian* corn, which is finely ground for that purpose: part of this is also sent to the preachers, that they may be spotted in the same manner, and with it the halves of four mats thus prepared The two women (the whole village, men, women, and children being assembled to see the procession) set out, one following the other, and taking care not to advance the foot which is up beyond the toe of that on the ground, to meet the preachers, who observe the same pace as their wives, and the mats, as the parties pass over them, are always taken up and placed again before Having passed each other, the women take place behind the men, and follow them by the same step at which they at first set out, to the house of one of the preachers when arrived, the men taking one side, and the women the other, they wash and change their clothes Here the ceremony ends, and the preachers, with their wives, are invited to a feast at the *Maungy's*.

THE above is the only festival where women can assist, or bear any part, as a woman never prays to public on these hills. It has before been said, that they are to recommend themselves to the protection of the Supreme Being, morning and night. During the time of the above festival, the compliment of a *salaam* is not paid to any person.

Pow GOSAIIH, or the God of the Road, or Highway, is the first worship young men perform, though it is not undertaken till some accident has induced the person to consult the *Cherreen*, or *Satane*, whether his praying and making an offering will be acceptable. This trial is perhaps of itself sufficient to confirm the opinion, that Pow GOSAIIH is offended, therefore the young suppliant vows to worship him. On the day of thanksgiving, on which the new *Takalloo* is first eaten of, or on the day appointed for the new *Kosarane*-harvest, he proceeds to a high road, and cleans and washes a small space under the shade of a young *bale* tree in the centre of this he plants a branch of the *muckmun*-tree, round it he makes marks and spots with red paint, and with a handful of rice, which he lays close to the branch, placing a hen's egg on it, on which three streaks of red paint were drawn, he invokes the Supreme Being, and God of the Road, to protect him while travelling, and sacrifices a cock, the blood of which is thrown on the *muckmun*-branch the offering, being dressed with rice, is eaten by the suppliant and such as may have attended him. The ceremony ends by breaking the hen's egg, and is never repeated by him unless he should again meet with some accident while travelling, on which the *Cherreen*, or *Satane*, is resorted to, for a confirmation of the apprehension that it was caused by Pow GOSAIIH's resentment, and his desire of being worshipped.

DEWARY GOSAIIH, or the God who is supposed to preside over the welfare of families, is the second worship which men perform there is no fixed time for it. He who discovers by the *Cherreen*, or *Satane*, that the welfare of himself and family depends on his holding this festival, distils spirits, purchases a hog, rice, red paint, and oil, and, having fixed on a day, invites his *Mawng* and friends on the day appointed a small space before the threshold is brushed and washed, and a branch of the *muckmum* planted in it on this some red paint is put, as well as marks made round it. The *Mawng* and his officers are taken into the suppliant's house, when pots of spirits and provisions are given to the former, as well as meat and drink to all the company After a short repast, the suppliant, with a hen's egg and a handful of rice, approaches the *muckmum*-branch, close to which the former is deposited on the latter During this ceremony, he implores the Supreme Being and DEWARY GOSAIIH, to be propitious to him and family. The hog is sacrificed by a relation, as an offering to DEWARY GOSAIIH, with professions of again observing the festival whenever DEWARY GOSAIIH may desire it. A feast is made with the oblation, and, at the conclusion, the suppliant breaks the egg, and pulls up the *muckmum*-branch, which he places on the roof of his house.

KULL GOSAIIH, or the CARRS of the mountaineers, is worshipped annually by cultivators, in the season of sowing their fields the proper time is ascertained by consulting the *Demana*, and confirmed by either the *Cherreen* or *Satane*, and is attended with more or less expence, according to the means of the suppliant If poor, it is deemed sufficient to make an offering of a cock, those who can afford it, purchase a cut hog and a cut goat, distil spirits, buy rice, red paint, and oil, and invite the *Demana* to assist them in praying, as well as their friends, chiefs, and neighbours, to a feast On the

the day appointed, the *Demauno* goes early to aid in distilling spirits, and in other preparations for the feast—the chiefs and others, having entered the suppliant's house, are presented with meat, and spirituous liquors to drink. The *Demauno* is also introduced with two *Kalewars*, and one *Dolewar*—he, and the suppliant, and the *Maungy*, facing the middle supporter of the house, pray for the welfare of the master, making a libation, and throwing down some meat, in the name of *Goomo GOSAIIH*, and of *KULL GOSAIIH* the *Demauno* and suppliant burn incense, while the *Kalewars* and *Dolewar* beat, and the *Maungy* and chiefs eat and drink. After this, the suppliant proceeds, with the *Demauno*, musicians, and all who may be disposed to join in the procession, to his field, where, at the stump of a tree, having cleaned a small space, and planted a branch of the *muckmun*, and prayed with the forms already described, burning incense,—the goat and hog are sacrificed by a relation of the suppliant's (who gets a rupee and a turban for this sacred office) so that some of the blood may fall on the *muckmun*-branch, and of which the *Demauno* pretends to drink a considerable quantity. He gives out that the blood digests in his throat, and does not pass into his stomach.

Of each of these offerings, the *Maungy* is presented with a fore-quarter for his family, and of the remainder all, except such whose wives are in their separation, partake. At the conclusion, the *Demauno* gives water to the musicians and the suppliant, to wash their hands, who return with the latter, and feast and drink at his house as long as any fragment of the provisions which had been prepared for the festival remains.

The *Demauno* having desired any person to worship *Goomo GOSAIIH*, and the *Cherreen*, or *Satane*, having confirmed his ordinance, the suppliant must rear a cut kid and cut pig for that express purpose, about two years, more

or less Having acquired property enough to perform his promise, for it is attended with considerable expence, he sends invitations to his chief and vassals, to those also in the neighbourhood, and to his relations, and, to mark the time for the festival, a string, with a number of knots equal to the number of days that will intervene, is sent to each From these strings, to avert mistakes, one knot is daily cut in the interval the suppliant is employed in distilling spirits and collecting materials, such as rice, oil, red paint, &c when one knot remains, the guests assemble, and, on the morning of the day appointed, some of the suppliant's neighbours, or relations, proceed to the jungles to cut three small *mackmun* trees. Before the first is hewn, a cock is sacrificed, that the blood may fall on it, and some spirits thrown on it, as a libation to *Goomo* As soon as the branches and bark are stripped off, two men are sufficient to carry each tree, and lay them without the village, where it is their business to prevent men, goats, or fowls, from touching them, and the suppliant, informed of their arrival, sends them drink for their trouble In the mean time he takes the chiefs and their officers, with the two men who had prayed at the *Chittaria*-festival, into his house, and presents the *Maungy* with two pots of spirits and a hog the *Demauno*, two *Kalewars*, and a *Dolewar* also go in. At their entrance, the *Demauno* gives water to the musicians, to wash their hands, he takes a small wicker-basket, containing about a *seer* of rice, on which he puts red paint, and places it with two pans near the middle supporter During this the *Kalewars* and *Dolewar* beat, and incense is burning, the *Maungy* having made a libation, thrown out some meat, and sacrificed the hog, in the name of their gods, he and the chiefs eat and drink.

THE *Demauno*, suppliant, and musicians, repair to where the trees are, whence the trees are brought home, laid lengthwise, east and west, cut the proper length, and the suppliant and his wife sprinkle turmeric-water on

them the *Demauno*, mounting astride on the one which had been first out, is carried five times round the house, when they are taken in, and, some earth being dug, are united to the middle supporter (which is called *Goomo*) being first spotted with red paint, and bound with a red silk thread. Incense is burned, and the *Demauno*, with a handful of rice, prays, laying the rice down, and placing a hen's egg on it, which had been previously three streaked with red paint. The suppliant, receiving a handful of rice from the *Demauno*, also prays, throwing it on the egg, when one of his relations brings up the fat goat, and sacrifices it so that the blood may fall on the *Goomo*. For this sacred office he gets a rupee and a turban. The *Demauno*, suppliant, and musicians, and all who may be disposed to be of the procession, proceed to a field, where, sweeping and washing near the stump of a tree, they plant the branch of a *mukkun*, and round it and on it make streaks of red paint. Incense is then burned, and with a handful of rice and a hen's egg, the *Demauno* and suppliant repeat the prayers and ceremony which had been observed in the house, when the fat hog and another goat are sacrificed by a relation. Some of the blood of these animals must fall on the *mukkun*, and the *Demauno* drinks of it.

A FOR~~E~~ quarter of each of the offerings being sent to the *Mesungy*, they feast and return previous to entering the suppliant's house, the *Demauno* gives him and the musicians water to wash their hands. The relations of the suppliant attend him, present him with spirits and a cock each, and anoint him, his wives, and children with oil. He sacrifices the cocks, makes a libation, and throws away some meat in the name of *Goomo*. They feast and drink for two or three days, and then repair to their homes. On the fifth day the ceremony concludes, by the suppliant sacrificing a cock to *Goomo GOSAIIH*, and another to *KULL GOSAIIH*.

GOOMO GOSAIIH is also worshipped as above, with this difference, that the suppliant does not eat, drink, or smoke in his house, or partake of any thing that had been in his house, for several days before the festival, nor is he allowed to partake of the offerings and this prohibition continues for five days after the festival, which is called *Oogoss Goomo Gosarh*.

THE worship of CHUMDAH GOSAIIH is so expensive, that none but chiefs, or men of property, can ever afford it, and these not oftener than once in three years, and therefore the votaries to this shrine most frequently exceed that period for so expensive a ceremony They first consult the *Demaruno*, and have recourse to the *Cherreeen* and *Satane*, both of which must agree with what the *Demaruno* prescribes, before this festival can be held when thus ordained, the suppliant must provide about a dozen hogs, as many goats, about three score seers of rice, two of red paint, fifteen of oil, about twelve upées must be expended in spirits, and some scores of cooking pots, dishes, and cups for drinking, laid in, as well as a few peacock's tails, a fan, three bamboos, nine score *natdria*-trees, and some red stones, which are ground for paint, and also some charcoal Thus prepared, the suppliant sends strings, with knots numbering the intervening days, with invitations to his relations and neighbouring chiefs On the day appointed, some thousands assemble, and are variously employed. Some grind the red stone for paint, others charcoal to mix with oil, while a great number are occupied in stripping the bark off the *natdria*, which is effected in one piece of four cubits long, by bruising it, three bamboos are then made straight by oil and fire, and are of the same length with the *natdria*-bark, a fat bog, grain, and several pots of spirits, are sent to the workers. The red stone and charcoal being ground, are mixed separately with oil, and a quantity of bog's blood added to both the barks of the *natdria* have about a cubit of the lower end of each blackened with

the charcoal, another cubit is left of the natural colour, and above it one cubit is painted red, caps of wood are fitted on the bamboos, and necks made in them on one of these, four score and an half of barks are bound with twine dipped in oil, on the second, three score are bound, and on the third, one score and a half, the heads of these three are ornamented with a profusion of peacock's tail feathers, thus prepared, they are called CHUMDAH GOSAIIH, and carried to the suppliant's house, where for the workmen a hog is dressed with grain, that they may be feasted for their trouble a hog, two pots of spirits, grain, and salt, are presented to every chief, for himself and vassals, who honours the suppliant with his company, as much is also given to his own relations, and a like quantity to the relations of his wives, and meat and drink is distributed to all assembled The women, who dress these provisions, exclusive of their daily hire, have a hog given to them, that they may eat together, as they are not allowed to feast with the men

THE *Chumdah*-bamboos having been brought about evening, and placed against the suppliant's house, he and the *Dematao* rub the ends on the ground with oil, and mark them with red paint, when the latter, with a hen's egg and a handful of rice, prays, observing the usual ceremony, that CHUMDAH GOSAIIH may be propitious to the suppliant, who follows his example, and also makes an offering of a cut hog, which he sacrifices so that the blood may fall on the bamboos, the largest of which, or one with the greatest number of barks pendant to it, he presents to one of his relations, the second in size to one of his wives relations, and the third to any volunteer The three persons thus favoured, support the *Chumdahs* by cloth tied round their waists, and balance them with their hands, dancing as long as they can when fatigued, they are relieved indiscriminately, without any distinction, and this amusement, with music, continues all night In the morning the

Demawoo and suppliant pray at the middle supporter of the latter's house, with the usual forms, when a cut goat is brought as an offering, and sacrificed by a relation hence they repair to his field, taking with them the *Chundah*, and again pray near the stump of a tree, where a small space is brushed and washed for the purpose, and a branch of the *muckman* planted, in addition to the egg and rice deposited here by the *Demawoo* and suppliant a shrine for *KULL GOSAIE* is washed, rubbed with oil, red paint put on it, and bound with a red silk thread, and placed close to the *muckman* branch, when a goat and two hogs are sacrificed by a relation, that the blood may fall or be sprinkled on the shrine *Chundah* and branch. For this office he gets a rupee and a turban the offerings being dressed, are eaten with grain the party having feasted, return, bringing with them the *Chundahs*, which are carried five times round the suppliant's house, and then placed against eaves, where they remain five days, at the expiration of which, a *seer* of *takallone* is served out to every person who applies for it, at the suppliant's house ; but four men are stationed at each of the four doors, that every person who goes out with the *takallone*, may receive a blow with the open hand from each of the four men stationed at the door he passes out of At the conclusion of this ceremony the *Chundah*-bamboos are taken into the house, and suspended to the roof, the suppliant repairs to the field, and makes an offering of a hog, and prays at the shrine of *KULL GOSAIE*, whence he returns and sacrifices a goat at the middle supporter of his house, with prayer these offerings are dressed, and, as is customary, they feast on them.

WHEN the *korawo* (a small grain like what the lowlanders call *sallye*) is reaping in November, or the beginning of December, a festival is held as a thanksgiving before the new grain is eaten of. Materials for a feast being prepared, a day is fixed by the *Maungy*, who invites the chiefs of the neighbouring

booming villages. On the day appointed, the two men who prayed at the *Chitariw*-festival, proceed to *Chitalia* to pray, and sacrifice a goat, which, with some *kosarans*, is an offering at the *Nad* to CHITARIK GOSAIH. On their return to the village, the *Mawngy* has his *kondone* brought out, on which he prays and immolates a fowl. During this, the *dungareehar*, or vassals, repair to their fields, offer thanksgiving, make an oblation to KULL GOSAIH, and return to their houses to eat of the new *kosarane*. As soon as the inhabitants assemble at the *Mawngy*'s house, the men sitting on one side, and the women on the other, the *Phedor* presents a hog, a measure of *kosarane*, and a pot of spirits, to the *Mawngy*, in the name of his vassals, by whom these had been contributed. On receiving them, he blesses his vassals, and exhorts them to industry and good behaviour, after which, making a libation in the names of all their gods, and of their dead, he drinks, and also throws a little of the *kosarane* away, repeating the same pious exclamations, which ceremony is the commencement of the festivity and drinking that lasts for several days.

ON reaping the *takallons* (*Indian corn*) in *August* or *September*, there is also a festival. Each man repairs to his field, with either a hog, goat, or fowl, to sacrifice to KULL GOSAIH, to whom he prays, and, having feasted, returns home, where another repast is prepared, and on this day it is customary for every family in the village to distribute a little of what they have prepared for their feast to every house.

SHOULD any person eat of new *Kosarane* or *takallone* before the festival and public thanksgiving at the reaping of these crops, the *Mawngy* fines the offenders a cock, which is sacrificed by the two preachers at the shrine of *Chitardash*.

THE mountaineers are represented to have in general an amorous disposition, their solicitude and attentions, when in love, are said to be unceasing. If separated but for an hour, the lovers are miserable, they conceal their meat to present to each other privately. The lady dresses whatever nice things she can secrete from her parents, to treat her lover with, and he presents her with rings and beads, and treats her with toddy. They go to market, and exchange paun and tobacco, and, on their return, should they perceive an acquaintance, they separate, to avoid being seen in company, but by assignation soon meet again. They retire to sleep together, but seldom are guilty of that indiscretion which is irreparable, though the fine for such imprudent conduct which the parties are afraid to conceal, is a hog and a goat to the *Maungy*, who sacrifices them on the spot where frailty made them transgress, and sprinkles some of the blood on them, to wash out the stain from his land, or rather to appease an incensed deity, who fails not to punish for such abominations. Thus when a virgin is deflowered with her consent, the blood of the offering is supposed to atone for their sin. Should the couple agree to come together as man and wife, the *Maungy* proclaims it, and they are immediately considered to be married, without any further ceremony or expence. The man has the option of taking her for his wife she however has the privilege of demanding a regular marriage, which implies the usual presents, and the time for the wedding is fixed.

POLYGAMY is allowed. A man may marry as many wives as his circumstances will admit of, that is, as often as he can defray the expences of the nuptials. When he sees a girl whom he wishes to espouse, he sends a friend to her parents to ask her in marriage they refer him to the lady. Should he obtain her consent, he acquaints the parents, who desire him to return to the sunor, to advise him of their acquiescence, and that he may prepare the usual presents

presents of *poonate* (beads) and *tubacane* (a ring for the neck) to present to the lady ; which being accepted, she is considered betrothed to him , and he, as soon as he can procure money for the expence of the nuptials, must provide a turban for the lady's father, with one rupee , also a rupee and a piece of cloth for her mother , and a rupee and a piece of cloth for several of the nearest relations These and the materials for the marriage-feast being provided, a day is fixed, on which the bridegroom, with his relations, proceed to the bride's father's house, where they are seated on cots and mats, and after a repast, the bride's father taking his daughter's hand, and giving it to the bridegroom, he publicly admonishes him to use her well and kindly, and not to murder her, threatening to retaliate , but if she should die a natural death, or by means of the devil, it cannot be helped On the conclusion of this exhortation, the bridegroom, with the little finger of his right hand, marks the bride's forehead with red paint, and the same little finger being linked with the little finger of the bride's right hand, he leads her out of the house to his own. At the expiration of five days, the bridegroom, with his bride, returns to her father's, well stocked with provisions for feasting, and, having passed two or three days with their parents, they go home, and the ceremony concludes

A MAN dying and leaving widows, his younger brothers, or younger cousins of the first and second degrees, or nephews, may receive the widows as wives If the parties agree on these occasions, the children go with their mother if the widow prefers returning to her relations, the children under ten years of age go with her, and she is entitled to a rupee and a pieces of cloth annually, for bringing them up When arrived at that period of life, they are sent to the relation of their father who paid their mother for taking care of them When a woman has ten children, her eldest brother may claim one , the right

is acknowledged from custom, though it cannot be enforced. The child thus adopted by an uncle, is treated as and has every privilege of his own children. Should this son by adoption arrive at manhood, die, and leave property, it is equally divided between the adopter and the father of the deceased.

A MAN desirous of marrying a widow, deputes a friend to ask her in marriage. Should she consent, she refers him to her late husband's relations, the nearest of whom, for his acquiescence, is entitled to two rupees and a turban. The parents of the widow are next consulted. Should they approve, they are entitled to some trifling presents, on which the father gives his daughter's hand, exhorting the bridegroom, as related in the description of a marriage. The red paint is not used on a second marriage a feast concludes the whole.

A MAN cannot marry a relation, though he may marry his wife's sisters, except in the instance of younger brothers, cousins, and nephews, receiving one each, or more, of their senior kinsman's widows, who are treated and considered as wives, though there is no expence nor ceremony attending their union.

SHOULD a girl be compelled by her parents to marry a man whom she dislikes, and should she be unhappy, and leave her husband, and, in despair put an end to herself, the parents get a court appointed, to enquire how their son-in-law behaved to their daughter. If it should appear that he treated her cruelly, he is considered guilty of murder, and fined, but not so heavily as is common for the commutation of blood. If, on the contrary, it should appear that he behaved well to her, it is deemed suicide.

SHOULD a married woman elope with a man, and the party be pursued, seized, and brought back, judges are appointed to try the man, who is generally fined one or two score of rupees. The husband may or may not receive his wife, and the seducer has to pay the fine

A MAN convicted of having committed adultery, is fined twenty or thirty rupees he is also obliged to furnish a hog, the blood of which, being sprinkled on the adulterer and adulteress, washes away their sin, and, it is believed, will avert divine vengeance the ceremony ends with a feast, and, the parties thus purified, the husband and friends are reconciled The adulteress in general reveals the secret, as a superstitious idea is entertained, that, if concealed, the inhabitants of the village will be visited by a plague, or that a tiger or venomous animal will destroy them When any of these happens, it is religiously believed to proceed from the immorality and evil doings of some individual, and as a punishment for some concealed sin, to discover which they have practices, in which they place implicit faith one is called *Satane*, and is as follows —A place large enough for a man to sit in, is brushed and washed, in the middle of which a small branch of the *bale*-tree is planted, and a person sits opposite to it, another supplies him with a few grains of rice, on a *Bale*-leaf, some of which he throws on the branch, the remainder he is to eat, the person who gave it to him repeating, that he is to swallow it in the names of all the inhabitants of the village, in which should the sinner be, it is believed God will make him throw up the rice. Should this happen, he is next to eat some in the names of families, and again in the name of all the individuals who compose that on which the *Satane* proof falls. Another is called *Cherreem*, and is thus —A stone is suspended to a string, which, it is believed, will be tossed to and fro, on the name of the village, family, and offender. The third is called *Gobereen*, and is of

a more serious nature than the two former A pot with some cow-dung, oil, and water, is put on the fire, when boiling, a ring is thrown in, each person approaches to take out the ring, calling on God to protect him if innocent, and to burn him if guilty On this trial, it is believed, the innocent will escape unhurt in taking out the ring, and that the guilty person will be severely burned, without being able to put his hand into the pot, as the mixture, it is said, will boil up to meet his hand.

WHEN a married man has been detected in committing fornication, his wife or wives may insist on a hog or goat being sacrificed, to sprinkle the blood over him Being thus purified, it is believed this ceremony expiates divine vengeance, which would sooner or later alight on him or some of his family, for this sin

WITCHCRAFT and sorcery are most firmly believed; and accidents or diseases, which elude their little skill in medicine, are attributed to some person supposed to be skilled in these arts, who has bewitched them When such a conviction is admitted, the *Cherreen* is consulted, and again the *Satane*, both repeatedly, till some person be named To confirm this ideal proof, which is received as infallible, an ordeal is undertaken, and on the part of such person (supposed to be bewitched) five men are employed who are qualified and acquainted with this mode of trial Such as are born immaturely cannot be engaged in it These five proceed to a retired place on the banks of a river, before day-light, taking with them wood of a particular kind, and make a fire to heat an iron : one of these is to touch the iron when red hot with his tongue, but is first to bathe While he is performing his ablution, the others heat the iron when red hot, a little rice is thrown on it, in the name of the person accused of witchcraft, and BIRMAN, the God

of Fire, exhausted so do justice. If it consumes, he is considered guilty; if not, not. the *Tatoo*, or person who touches the iron, keeping one foot in the water, puts the iron to his tongue, and must repeat it as often as nine times, if the first and second touch does not burn, which however cannot happen. On the *Tatoo* being burned, the party return before sun-rise, and, on their approach to their village, the friends of the sick person are called out to see the *Tatoo*'s tongue. The person accused may object to the trial, and insist on its being held over again, that two persons may go, on his part, to witness it. On this proof, the unfortunate person is seized and punished, till he or she acknowledges the crime. It must be also told who instructed him, or her, in the practice of this evil art. The *Chouraga*, or warlock, is now brought to the sick person, to exorcise him from his spell. Should he recover, the *Chouraga* is compelled to pay one rupee to him, one to the *Maungy* of the village, one to the four persons who witnessed the ordeal, and eight annas to the *Tatoo*. On the other hand, should he die, the *Chouraga* must either suffer death, or redeem his life (at the option of the friends of the deceased) at the price established for the commutation of blood. Again, the friends of the *Chouraga* may retaliate on the person whom their relation accused of having instructed him in sorcery.

IT is not uncommon for two neighbours to agree, when their respective wives are pregnant, that the offspring, in the event of there being a boy and a girl, shall be married to each other. On these occasions, the ceremony may be performed when the parties are about eight or ten years old. Should the father of the girl violate the engagement, and give his daughter to another person, the father of the boy will obtain a fine equal to the expence of a marriage, which is rated according to their circumstances whereas, should the father of the boy, notwithstanding his contract, marry his son before he has

performed his part, the father of the girl is entitled to a fine of a turban and one rupee after which it may still be performed or not, as the parties mutually agree.

WHEN a woman is in labour, four or five of her relations and neighbours assemble to attend her, amongst these, the most experienced does the duty of a midwife. The woman keeps her house for five days, and her husband attends her, during which he must not enter any person's house, or field, nor until he and his wife have washed their clothes and bathed. On this day the child is named by the father, but, if he be not present, the mother gives a name, however, this name may be changed before the child is weaned. After this they go out as usual. The women who attended her in child-bed are entitled to a feast, are anointed with oil, and their foreheads painted red. A piece of cloth is given to the one who performed the office of a midwife, and a little grain, or some other trifling acknowledgement, to the others for their friendly assistance.

WHEN a child dies that is not weaned, the father sends a friend to his *Maungy*, to solicit ground to bury the body, which being compassed with, the corpse is carried to the grave, in a place allotted for public burial, and interred with its head to the north. For infants of this description, no further ceremony is observed; but, when a child dies that has been weaned, at the expiration of five days, the relations and neighbours are invited to a feast called *Boge*, which being prepared, the father, or nearest male relation, takes a little of every thing that may be dressed, and proceeds to the road leading to the burying-ground, where he throws them away, in the name of God and the deceased; the intention of which is to avert the like misfortune in future, and, returning to his house, the company are feasted, all observing the same

custom of throwing away a little, in the name of God and the deceased, previous to eating. Another entertainment, similar to this, is given at the expiration of a year, and, annually, at the thanksgiving for reaping the *takaloo* and *kasarane*. Some of each of these grains are thrown away, in the name of God and of the deceased.

WHEN a child is still-born, the body is put into an earthen pot by the women who attend, and covered with leaves, the father carries the pot into the jungles, places it near the stem of a tree, and covers it with some brush-wood, where he leaves it, and there is no further ceremony.

THE corpse of a person dying of the small-pox or measles, is taken with the bed-stead into a jungle about a mile from the village, and placed under the shade of a tree, where the body, the bed-stead, and clothes, are covered with leaves and branches, and left. Those who attend the funeral, bathe before they return to their homes. At the expiration of a year, the relations, being prepared for a festival, proceed out of the village on the road leading to where the body was placed, with all whom they invite, where one of the kinsmen having prayed, and thrown away a small portion of the feast, and made a libation in the name of the deceased, the party assembled partake of it, and return. The bodies of most others, dying a natural death, are buried, and the cause assigned for disposing of the bodies of those who die of the small-pox, as described above, is a superstitious idea, that such an act will avert any further fatality, whereas, if buried, it will continue to rage, and carry off every inhabitant of the village, which is reported to have happened formerly.

WHEN a young man, or virgin, who is marriageable, dies, the father, or nearest relation, sends a friend to solicit four cubits of ground, to bury the deceased,

deceased, from the *Maungy*; who asks if the relations propose putting the bed-stead into the grave with the body, in which case a rupee is paid to him for the purchase of a hog. No time is lost in carrying the body to the burying-ground, where a grave of a foot and a half, or two feet deep, being dug north and south, the head is placed towards the former point; the body is covered with pieces of green wood laid across it, after this some long grass, and then the earth which had been taken out, is thrown over the grass to conclude, small stones are laid to encompass the grave, and a few over the middle of the body. No women or girls are allowed to go to funerals, nor are prayers said. On the return of the party, it is customary for the whole to wash their legs and arms previous to entering their houses.

THE hog which the *Maungy* had purchased with the rupee that was paid for permission to deposit the bed-stead with the corpse, is sacrificed by him. The liver being taken out and roasted, the *Maungy* takes a small bit, and casting it away with some of the blood, in the name of God and of the deceased, the remainder is divided among such men as may be present, who repeat what the *Maungy* had said, throwing a little away before they eat. After this repast, the carcase is divided; the *Maungy* separating a fore-quarter for his family, shares on the remainder in proportion with every inhabitant of the village. At the expiration of five days the *Hage* is observed, and every family in the village, or as many as the relations can entertain, are invited. When the father has performed the ceremony of carrying a little of every thing that is dressed, with some spirits, provided solely for the purpose of a libation, to the road leading to the burying-ground, and there cast them away in the name of God and of the deceased, the company assembled are all served, whether male or female, old or young, on separate leaves, and each, previous to eating, observes the ceremony of throwing some away, as already related. Another

Boge is held at the expiration of a year, differing only from the former in the free use of liquors. At the annual thanksgiving for the reaping of the *tatal* and *lesar*, some of each is thrown away, in the names of the deceased kinsmen, for one or more years, according to the degree of propinquity and estimation in which each was held. It however ceases at any time that the survivors remove from the village in which their kinsmen died.

When a chief of opulence and high rank is dangerously ill, he orders his relations, male or female, and vassals, to be assembled, as soon as they attend him, he informs them of his situation, and, as they will observe he has not long to live, he desires them not to grieve, but to be comforted, and points out the son whom he wills to be his successor. Here primogeniture has no preference, if he be a son, he must succeed*, a daughter cannot, though an idiot, it is to be understood his right, and some near kinsman is named by the dying man to be his son's guardian to him he bequeaths his territories and fortune (though certain sums or parts are to be distributed) and desires them to look to him for protection. On his death a drum is beat, to announce it to such as are at a distance, that they may attend to see the body, which is not removed before the vassals collect together, to be witnesses of the fact, it is then carried without the village, close to which it is interred on the bedstead, in the same manner as reared of a young man's or virgin's funeral. A piece of silk is spread over the grave, and stones placed so as to prevent the wind blowing it off. a hut is erected to shelter it, and, round the whole, a fence of bamboos or stones. The mourners, on their return, observe the usual oblation, and are feasted, but throw away some of whatever

* In some of the *toppatis*, a son may be set aside, and the succession may be bequeathed to a brother, as is now the case in *Musserry*, the present chief, brother to the late *Zengy*, who left a son a minor, succeeded by desire of the deceased, and received his brother's widows as wives, they

they have to eat or drink, in the name of God and of the deceased, previous to tasting it. All who come are thus treated in succession for five days, when the first *Boge* is kept; when the only difference between it and that of a *Dau-garris*, or vassal, is the greater expence from a concourse of relations and adherents assembling, and that spirits are provided for them. At the festivals for reaping the *takdl* and *kosar*, some of each is thrown away on the road leading to the grave, as already described. At the expiration of a year, the chief's relations and vassals being invited for their second *Boge*, the *Denaruno* and the heir pray at his door for the deceased, when all assembled partake of the feast, with the usual ceremony at the conclusion of this the fortune and goods of the deceased are divided, the heir taking one half, the other is equally divided among the sons, brothers, and nephews by the brother's side. Nephews by sisters do not share, the widows may, if the parties agree, or go with any of their late husband's younger brothers, or nephews by the brother's side, as wives. If however the parties do not agree to come together, the mother of the heir has the option of remaining with her son, or of returning to her relations, the other widows must do the latter.

WHEN a married woman dies, the widower observes the usual *Boge* at the two stated periods he is not allowed to marry before the performance of the second, or at the expiration of a year, and it is customary to present the nearest kinsman of his deceased wife with one rupee and a turban, after which he may espouse as many wives as he pleases, or has a fortune to maintain.

THE body of a person who dies of a dropsy (*Narat*) is carried and thrown into a river, if buried, it is apprehended the same disorder would return, infect, and carry off the other inhabitants. The funeral party having cast the body into the water, proceed to another part of the river to bathe, and there,

having

having brought a fowl and some *takdl*, or rice, some of each is thrown into the water, in the name of God and of the deceased, by all who are present, before they eat. This is the only *Boge* which is observed for persons dying of a dropsy, though, at the thanksgiving, for reaping the *Takalloo* or *Kosar*, some of each is thrown away in their names.

WHEN a person has been killed by a tiger, the body or aoy part of it that is found, is covered with the branches of trees. On the fifth day the relations of the deceased, with a large party, proceed to the place where the remains of their kinsman lay, taking with them a new earthen vessel, a goat, and ten or fifteen seers of *Tukdl*, or rice. Being arrived at the spot, one of the nearest relations prays for the deceased, in which he is accompanied by the *Demauno*, at the end of their prayers, the former scatters some grans of rice, and cuts off the head of the goat, naming God and the deceased. The moment he severs the head, he rushes into the midst of the party, who surround him, the *Demauno* at the same time seizes the head of the goat, sucks the reeking blood, and is supposed to become frantic. He casts the head from him and springs after it, endeavouring to imitate the tiger, and making a hideous noise as like that beast as he can. He looks about for the preacher, whom it is the business of the party to conceal, and prevent his touching. Should he in his exertions accomplish this, a superstitious opinion is entertained that the poor preacher will infallibly fall a sacrifice to a tiger. When the *Demauno* is well wearied by his pranks, the head of the goat is put under ground in the earthen vessel, thus speedily restores his reason, and the preacher comes out in safety. The party thence retire to a small distance, have a feast, and return to their homes. At the expiration of a year, the second *Boge* is held for the deceased, in the same manner as for any other relation, and the same attention is paid to his memory on reaping the *Takalloo* and *Kosar*.

WHEN any person dies of the *Moogdo*, or *Kory*, a disease in which the extremities decay and drop off, the body is buried with the usual ceremony, and the *Boge* is twice observed as usual, at which every sort of flesh, except goats, may be eaten fish is also forbidden In that disease goats flesh and fish are not allowed to the patient, which is the cause of their being forbidden at the *Boge*

SUCH as die of an epilepsy, are buried with the usual ceremonies at their *Boge* hogs flesh is forbidden, because those who are subject to the epilepsy are not allowed to eat it

PERSONS who are killed, and suicides, are buried with the usual ceremony above recited

WHEN a *Demawno* dies, his body is carried into the jungles and placed under the shade of a tree, where it is covered with leaves and branches, and left on the bed-stead on which he died The objection to interring his remains is a superstitious idea, that he becomes a devil, and that, if buried, he would return and destroy the inhabitants of the village, whereas, by placing the body under a tree, he is thus compelled to play the devil in some other The usual *Boge* ceremonies are observed, but cow's flesh forbidden to be eaten at them Should a *Demawno* eat of it, God in his wrath would cause all his functions to fail in their effect

IT sometimes happens that very old men, when they are very dangerously ill, desire their descendants and relations to be assembled, to whom they give directions about the disposal of their body. that is, if they wish not to be buried, some direct their remains to be placed under the shade of a tree, while

while others order them to be thrown into a river Their will in this respect is strictly attended to, and the two *Bage* ceremonies are observed

BEFORE the chiefs of the hills put themselves under the protection of the English government, wrongs and injuries committed by the inhabitants of one village on that of another, were in general decided by the sword, but disputes and differences, whether with regard to property or otherwise, between inhabitants of the same town, were always settled by the *Maungy* and his officers the first of them in rank is the *Cuttural* (who is the chief's deputy) next the *Phojedars*, and lastly the *Jemmedars*, who have a certain number of men under their authority, to inspect the conduct of the inhabitants, and report it to the *Phojedar*, to these, old and experienced men were added, and usually called in to assist, when the subject of litigation was of importance at present, none but trifling disputes are settled by those officers, for murder and all capital crimes, the delinquents are brought to *Bhigalpore* or *Rajmahall*, to be tried by an assembly of the chiefs, agreeably to the engagements entered into by MR CLEVELAND with the head *Maungies* Though the *Maungies* of all the villages also assemble on these occasions, none but the *Sirdar Maungies*, or chiefs of *tuppahs*, and their *Nabs*, or deputies, sit in judgment On passing sentence, it is customary for them to ask the inferior *Maungies*, if the decree be not just Should these question it, another examination takes place, when the decision may be the same or amended

I HAVE been present at several of these trials The forms observed, were first to swear in the judges according to their faith this being peculiar, their various ways of taking an oath may not be thought unworthy of description. The hill-word *Deebseen*, is an oath. There is no particular officer

for administering oaths, any person may do it The form in general use at these trials, is, for a mountaineer to put a little salt on the blade of a *Tukwar*, or scimitar, when he says, "if you decide contrary to your judgment, and falsely, may this salt be your death." The person swearing having repeated this imprecation, and applied it to himself, the part of the blade where the salt is, is held above his mouth, which he opens, and it is washed off into his mouth with some water, that he may swallow it. Those who, from indisposition or infirmity, do not like to swallow the salt, repeat the oath, putting their hand on two arrows fixed transversely in the ground, at about a cubit's distance, with some salt between them. On some occasions a man swearing repeats the oath, with his hand on a sword, while others repeat it, laying hold of any person's hand and all these forms are considered equally binding. Next, the commitment and charge are read and explained by the collector's officer, in his, the collector's presence, then the delinquent must state his defence or confess his crime, sitting on his hams, after which the *Moungy* and *Projedur* of the village where it was committed, declare what they know of it. Here the criminal is apparently his own accuser, by never deviating from truth, the vice of lying being considered an aggravation of any crime, but I have known the accused refuse to speak, for lying has not obtained much among these highlanders. A man convicted of falsehood, or who violates a promise, is called *passary*, the meaning of which is, a person to whom no credit is due, though he should even speak truth, and whose professions or promises are not to be depended on. Such a person is not admitted on any arbitration, or on any committee to settle trivial differences.

FORMERLY, when a man of one village had a claim upon an inhabitant of another, it was not uncommon, if the latter denied it, and refused to have the

matter

matter brought to trial, for the complainant to apply to the chief of his village, to unite with the heads of one or two others, to whom presents were made in proportion to the nature of the dispute, to form a junction with all their vassals to plunder the village where justice was denied, and to carry off the offender the division of the booty was according to the rates allowed the *Mawngies*, their officers, and vassals. In such troublesome times much was not taken, as all property, not of immediate use for domestic purposes, was usually concealed, the chiefs could therefore only have the first choice of the utensils and apparel which fell into their hands. The relations and chief of the village from which the captive was taken, after some time were wont to send a present to the complainant, acknowledging the demand, and promising to abide by the award which arbitrators should give, on his being released these cooditions were complied with, the prisoner was enlarged, and he and his relations had to make good the loss sustained by the inhabitants of the plundered village, as well as to pay the costs of the arbitration.

IT some times happened on such occasions as the above, that the inhabitants of the village intended to be plundered, got intelligence of the design, and the cause of it, on which it was usual for the *Munngy* to call on his vassal, to answer to the accusation if he acknowledged it, an ambassador was dispatched to the complainant, desiring him to desist from his intention, and to name arbitrators, that justice might be done - on the other hand, if the charge was denied, and the accused exhorted his chief to stand on the defensive, with an assurance that he would either prove his innocence, after the invasion, or make good the loss sustained on both sides, the vassals were assembled and stationed to guard every avenue leading to the village Night attacks were most common, but these precautions were in general

general sufficient to induce the assailants to defer a scheme which was merely to plunder, and, as long as the defendants were alert, nothing was attempted, the invaders therefore kept to their neighbourhood, and, when they were harassed by watching, the party advanced, and a man was sent forward to scatter a soporific dust to windward of the village, which, it was believed, would put every inhabitant in it to sleep in less than an hour after dark. In this persuasion they rushed on to plunder, and, carrying off all that was valuable, retreated, soon after which a deputation was sent from the despoiled village, desiring an arbitration to be appointed, to try whether the accusation was just which was alleged against the inhabitant of it. If proved, he was bound to make good the loss sustained, as well as to commute the lives that might have been lost on both sides. On the other hand, if acquitted, all this fell on the accusers.

When a man by accident killed one of his brother sportsmen in hunting, it was customary for the party to carry the body to the village, where the relations of the deceased, having declared the party had no right to slay their kinsman, set out and implored the assistance of a neighbouring *Muungy* with his adherents, to obtain justice. Having succeeded, they returned in force to plunder the homicide's houses, and took eatables from every house in the village. At the conclusion of this violence, the serdars of the village assembled to sit in judgment on the part of the hunters, whilst those of the assailants met them on the part of the kinsmen of the deceased. The sentences on such occasions were seldom less than ten or twelve scores of rupees, as a commutation for the blood of the manslayer, two-thirds of which ransom he had to pay, and the remainder was recovered from the party of hunters. When the above fine was realized, another complaint was made by the relations

relations of the deceased to the *Munigys* of the village to which he belonged, claiming some consideration for the children which he might have begotten had he lived Judges being appointed to examine the second demand, the fine was about two or three scores of rupees from the homicide

WHEN a woman had poisoned her husband, and confessed the fact, judges were appointed to settle a just retribution, ten or twelve scores of rupees were commonly adjudged, and the sum was recovered from the woman and her relations, to whom she was returned.

A PERSON convicted of stealing cloth, was not fined more than five or six rupees, and a turban , yet the thief, by praying for an abatement of this, was in general let off, on paying one rupee, and producing one hog and a turban

WHEN an orphan, who had no relations or property, was convicted of stealing money, grain, or cloth, he was compelled to restore the stolen goods, and flogged and discharged Judges were not appointed for such a trial, as the accused was supposed neither to have property nor friends to pay the fine for him

WHEN grain had been stolen, and the thief unknown, the *Cherreen* was first resorted to whether this was successful or not, the *Salane* was next tried to confirm the discovery, which might have been made by the *Cherreen*, or to find the thief by it if the *Cherreen* had been unsuccessful In the event of both failing, or on their being firmly denied by the accused, he was compelled to attempt the *Gobereen*, which was deemed unerring. On such slender

der proof the accused was seized and punished, till he acknowledged the theft, and declared whether any person advised him, or was an accomplice he was then set at liberty, and judges were appointed by the *Mazungy* of the village to inquire what damage had been sustained, which the accused was obliged to make good, and to fine him according to the nature and extent of his crime On these occasions the fines were heavy, to deter others from committing similar offences.

WHEN a chief had killed a poor man, the officers of his own village, and those of a neighbouring village, were assembled, with some sage old men for the trial Should the fact be established, the relations of the deceased might refuse a commutation for the blood of the murderer, in which case he was delivered up to them to be put to death, and his kinsmen had to pay the expences of the trial The ransom was in general ten or twelve score of rupees, but the relations of the deceased had the option of remitting the fine, and of pardoning the murderer.

ALL applications to a chief to apprehend any person in a civil cause, and to appoint judges for a trial, are accompanied with a fee; and any person borrowing money for that purpose, is compelled to pay two rupees for every one so borrowed, at the issue of the suit, whether he gains it or not.

A CHIEF HAS no more right to strike a poor man than the latter has to strike him the crime and punishment in either case is equal. Should a chief without provocation strike a poor man and draw blood, the latter complains to the *Cutwal*, who with the *Phojedar*, and some old men, being assembled, and having heard the complainant, they depute an agent to their chief, to require him to answer the charge; which being acknowledged, the

agent returns, and informs the court that the offender confesses his crime the complainant then demands a certain sum for reparation, and the agent sets out to the offender, who, on begging a remission of the fine, in general gets off by furnishing a hog, which being killed, the blood is sprinkled on the wounded person A similar misfortune is thus supposed to be averted, and the parties reconciled, the aggressor paying the expences of the trial

SHOULD a man borrow some *Kosarane* for seed from another, and refuse to repay for eight or ten years, and till he is compelled, the lender, on establishing the loan before judges, will receive three rupees for each seer that is due to him.

THE same penalty is levied from those who refuse to repay a loan of *Takaloo*.

WHOEVER accuses a man of committing incest with his mother, on proof of such abuse before a jury, will be fined a rupee for the complainant, and a hog for a feast to his judges

SHOULD a man, who is sober and walking about, touch another who is asleep, or sitting, with his foot, the aggressor will be fined a rupee for the complainant, and a hog for a feast.

A PERSON committing the same offence while drunk, is let off on giving a fowl to the complainant

SHOULD a man who is intoxicated, by day-light, and wilfully vomit on another, on conviction before judges, he will be fined a turban and one rupee

should he however, from its being dark or otherwise, not see the person, he is forgiven

SHOULD a man seize and cultivate a field which his neighbour had begun to clear, this offence not being cognizable before judges, the latter imprecates divine wrath, that nothing may grow on it. It is believed that his prayers will be attended to, and that the produce will be small comparatively with former years.

IF two men quarrel, in their cups, and blood be shed,—when sober, judges are appointed, and the person who cut his antagonist is fined a hog or a fowl, the blood of which is sprinkled over the wounded person, to purify him, and to prevent his being possessed by a devil—the flesh of whatever has been sacrificed is eaten, and a feast reconciles the combatants, but, if the men quarrel while sober, and one be wounded, judges are appointed, and, exclusive of a hog or a fowl for the purpose above described, the person who drew blood from his antagonist is fined one rupee, and a hog for the *Maungy* of the village, and, at the discretion of the judges, is compelled to pay a fine to his wounded antagonist.

SHOULD a man, by design or accident (in carrying fire) set fire to a jungle, whatever loss is sustained by the flames spreading, and burning grain, or mens property, he must make it good. If a town should be set on fire by accident, and the whole be burned, the person who accidentally caused the loss is not fined, because the loss sustained would be too great for one person or family to defray; but, if only one or two houses should be burned, the offender and family are obliged to make entire restitution

IF a man be detected by a woman sitting on her cot, and she complains of the impropriety, and demands a fowl as a forfeit, he complies, but she returns it on the other hand, if a man detects a woman sitting on his cot, and he complains and demands a fowl, she must produce it, and he kills the fowl, sprinkling the blood on the cot to purify it the woman is then pardoned

WOMEN at certain times are considered impure should one in such a condition touch a man by accident, even with her garment, he is defiled, and for this offence she is fined a fowl, which is sacrificed, and the blood sprinkled on the man to purify him Women at such times may talk to men, but not touch them A man, whose wife has that impurity, must not himself during that period sit on a chief's cot, for so doing the fine is a fowl, and the blood is sprinkled on the cot to purify it He must not even eat or partake of any thing at a festival during such period of separation, and any person detected in this offence, must pay the expence of purification from this pollution by another festival, to be held for that purpose at his expence.

WHEN a party are assembled to go a hunting, and have arrived at their ground, the *Cherreen* is held to ascertain which of the party will be most acceptable to the God of Hunting, to return thanks for the success they may have, two hen's eggs are given to the person named This ceremony over, some are stationed at the skirts of the wood, while others scout it to drive the game to them On their killing either a hog or a deer, the preacher breaks one of the eggs on the tooth of the animal, and throws the content, on its head, at the same time returning thanks to AUTOHA, the God of Hunting This is observed on the death of all large game. On their return

home with their game, the heads, the tails, and flesh on the inside of the loins, being separated, are considered sacred, and women are not allowed to taste of those parts, but the hunters feast on them, and the rest (one hind quarter being first given to the fortunate sportsman for his share) is equally divided among the party for their families. When the hunters have finished their repast, the one who killed the game sacrifices a fowl to AUTGHA, the blood of which is shed on the fore teeth of the game, with thanksgivings to the God, and the preacher, having cut up the heart, that the blood of it may fall on his bow and arrow, breaks an egg on it, praying again to AUTGHA.

SHOULD a woman privately eat of those parts of which they are forbidden to taste, the mountaineers believe that AUTGHA will be offended, and prevent their having any success in hunting on any future excursion, and, if they do not happen to kill some game, the failure is attributed to the above cause, and the *Cheerren*, or suspending a stone to a string, is resorted to, to discover the offender, who, on such doubtful proof, is fined a fowl, which, being sacrificed to AUTGHA, the God is thus supposed to be appeased, and will be propitious to them on the next hunting party.

IF a hunter goes out alone, and wounds some game, and returns for assistance to find and bring it home, those who go with him are entitled to one half

WHEN it is found that wild boars or other game have been in a cultivated field, the owner leaves a road for the beasts to return, and erects a stage to watch their coming at night. Should he wound any, he repairs to his village to announce his success, and to beat up for volunteers to assist him in

ascertaining which way the game went, that they may knowwhere to find it in the morning. They are directed in this by the groaning of the animal, which cannot run far, the poison which they use on their arrows being of a most subtle nature, yet its being of so fatal and noxious a quality does not prevent their eating the game, after cutting out a large piece of the flesh round the arrow, which is thrown away I heard an instance of a man's eating that part, and dying soon after A sportsman, who goes out alone, keeps half of whatever game he kills, the remainder (after the *Mangay* has taken several joints of the chine) is divided among the inhabitants of the village

A SKILFUL and fortunate sportsman, who gives up all his time to hunting, daily kills more or less. When ten or twelve score heads of game have fallen by his skill, it is customary for him to take all the teeth and horns to a convenient place for prayer, and to sacrifice a hog over them to AVUGHÀ, the God of Hunting, who some times favours the huntsman, by drawing some game within view of the festival, that he may sally forth to kill it, and whatever his success may be on this occasion, it is considered as an addition to his offering, and accordingly eaten on the same altar It is to be observed, that every sacrifice to their God is eaten

WHEN a hunter wounds game which he cannot find, he returns home to collect his friends to go in search of it in the interim, should any person or persons pick it up, carry it off and eat it,—on detection, they will be fined by the judges five rupees and as many hogs, though the complainants in general let such offenders off, on their delivering one rupee and one hog.

Dogs that will hunt are held in estimation by the mountaineers, and any person killing one, is fined ten or twelve rupees

THE penalty for killing a cat is whimsical a person guilty of it must collect all the children of the village, and distribute salt among them, that he may avert divine vengeance.

IT is related that a man, sitting with another, observed his companion's clothes on fire, and that, for informing him of it, the latter demanded a fowl, to shed the blood of it on his burned clothes for his friend's officious kindness, observing also that the clothes were his, and that he had no business to say any thing about them. This practice is now obsolete as far as regards the exaction of a fowl, but the circumstance is related to this day

HOSPITALITY is considered a virtue, and when a relation or a man of rank comes to see his friend, he is kindly received, and treated as sumptuously as the ability of the host will admit of. Strangers travelling are well received, a house and bedding is allotted them, and the inhabitants contribute to furnish them with as much provisions as they can eat.

WHEN a peasant waits on his chief to represent any grievance, having made his *salam*, he is not of himself to enter on the subject of it, unless he is desired, as his chief may be thinking of business of importance, when it would be improper and disrespectful to interrupt him, but due attention is always paid to the complainant

A PEASANT does not sit in the presence of his chief without being desired to do so, and respect requires that he should decline it two or three times before he obeys, taking care to sit at a good distance When business leads them to their chief, it is customary to have him previously advised of it A man who has business, if he has any penetration, will observe at a dis-

tance what humour his chief is in, before he approaches him. If he should seem pleased, they think it right to embrace the moment, keeping at a respectful distance, and advancing but a step or two as desired, but, if he is in an ill-humour, the complainant generally defers his suit. It is considered disrespectful in an inferior, even to enter a chief's house without being invited. When a chief visits another chief, the guest is always desired to seat himself first.

IN addition to the foregoing account, a few general remarks may neither be deemed superfluous nor unnecessary. The natives of these hills are mostly very low in stature, but stout and well proportioned. To find a man six feet high would, I believe, be a phenomenon; there are many less than four feet ten inches, and perhaps more under five feet three inches than above that standard. It may not however be far from the truth to consider that as the medium size of their men. A flat nose seems the most characteristic feature, but it is not so flat as the *Coffres* of *Africa*, nor are their lips so thick, though they are in general thicker than the inhabitants of the neighbouring plains. I shall not pretend to say whether they ought to be considered the aborigines or not as they have no letter, figure, or hieroglyphic, all accounts of their ancestors are oral. It will however be remembered, that they consider themselves descended from the eldest of the seven brothers who, according to their tradition, peopled this earth, and who was an outcast for receiving his portion of every thing eatable on an old-dish, that the hills in the districts of *Bhagalpore* and *Rajmahall* were allotted for him and his descendants these being rather unproductive, and their wealthy neighbours refusing to associate with them, they had no alternative but that of plundering. These causes are assigned for their remaining in barbarous

barbarous ignorance In numbers, the hill-language has only words for one and two, which are variously expressed, as applied to different subjects they however use the *Hindu* words in counting from two to twenty, and, when reckoning any thing which exceeds that quantity, they begin again at one, numbering by scores. Of their manufacture and commerce, little can be said The small and common *Hindostany* bedsteads are made by the highlanders, and brought down for sale, with the wood-work of ploughs rudely shaped Wood for various purposes, as well as for fire, with charcoal, and planks shaped with a hatchet (probably that they may be more portable) are also brought down for sale to these, bamboos, cotton, honey, plantains, sweet potatoes, and occasionally small quantities of grain, may be added, and will, I believe, include all the articles, which they barter for their few wants from the plains, such as salt, tobacco, rice, for the purpose of worship, cloth, iron heads for arrows, hatchets, crooks, and such iron implements as they may have occasion for I may add, that they have no manufactures except the bed-steeds, there is nothing made in the hills they are even indebted to their neighbours on the plains for earthen pots Salt and tobacco are their principal wants, for, in describing such hill-villages as are nearest market-towns, or such as have *hauts* on the plains, it is common to say, such a hill-village is supplied with these articles by such a town on the plains Thus their trade is confined to a very narrow compass Cultivation is in as unimproved and rude a state as it well can be, and seldom more extensive than for the immediate consumption of the cultivator and his family. The women as well as men work in their fields. The bringing of wood and water for all domestic purposes, cooking, cleaning, arranging all house affairs, belong to the former, and they are also employed in carrying wood, bamboos, and other things to market on the plains, to exchange for salt and tobacco

bacco Hence it appears, that the greatest share of labour falls to the women, and a man is rich in proportion to the number of his wives, who are so many labourers There are two sorts of soil which the mountaineers cultivate, the one a black earth, which is esteemed the best, the inferior is called red, is stiff, and of the nature of clay Where there is earth sufficient for the purpose of cultivation on the sides and tops of hills, the trees, with which these hills are well covered, are cut, leaving pretty large stumps, and such as cannot be conveniently moved, or are wanted, are burned where they fall, in the places so cleared Holes are made from three to four inches deep with a piece of hard wood pointed, in the middle of June, or setting-in of the rains in each of these, two grains of *Takalloo*, two of *Kosarune*, two or three of *Lahary*, and from five to seven of *Nasto*, are thrown in, when they are filled with earth These holes are not made nearer than a cubit and a half, if less space was left, the grain would be too thick, and not so productive *Koppai*, *Gungarea*, *Mooto*, and *Koodama*, are scattered in the same field, with *Massee*, which is sometimes scattered, and at others, put into separate small holes In this field *Kuldee* is also planted, and slips of the *Marallee*, *Bareilly*, or yams, are cultivated, and grow wild likewise, *Takalloo*, or Indian corn, is the same as what is variously named in the plains *Bootah*, *Janeera*, *Jewar*, *Muckas*, but is larger and better on the hills, and is reaped in November *Kosarane* is like the *Calze* grain of the plains in taste, but is white, and rather larger it is reaped at the latter end of November and beginning of December, *Lahary* is a large pea, reaped in December, *Nasto* is a round seed, reaped in December, *Kappas* is cotton, and does not flower before the third year, when it is gathered in March, April, and May, and sells for as much as cotton produced in the plains, *Gungarea* is a grain smaller than the *Cheenree* of the plain, is reaped in September and October, *Mooto* is somewhat like the *Gungarea*, and reaped at the same time, *Koodama* is also

very small grain, and reaped as the two former, *Mossee* is the same as the *Bhatimoss* of the plains, but a smaller grain, and is reaped in September and October, *Kuldes* is a large plantain, bears some fruit the second year, but more plentifully the third and fourth, after which it declines; *Marallee* is the same as the *Sakkerkand*, or sweet potatoe of the plains, but much larger, is taken out of the ground in November, December, and January. The foregoing includes all the cultivated productions of the hills they are, as may be supposed, of a hardy nature, and are plentiful or scanty, in proportion to their having enough or too little rain, for they trust entirely to the monsoon for water, having neither reservoirs, nor any method of watering their fields; which in fact might not be possible, from their situation. This last season their crops in general failed, from want of rain on these occasions, the mountaineers cut more wood and bamboos, and make greater quantities of charcoal, for which they find a ready mart in the lowlands, and exchange it for grain. From this resource, and the thriftness of some among themselves, who are provident, they averted a famine during the great scarcity in 1769 and 1770 many of the inhabitants of the plains retired to the hills, where they got a subsistence, but, having associated and mixed with the highlanders, they of course lost their casts, and therefore many remained with them. The *Takaloo* is the most productive of any of their grain, and is their chief subsistence. There are no esculent herbs, nor garden-stuff on the hills. *Pungdoakes*, the same as *Sootree* in the lowlands, grows wild, and is larger than the *Sootree*. In times of scarcity, *Singlah* (in Moors, *Jinggoor*) is found in the jungles, but it must be boiled in several waters, or well roasted, and is a dangerous unwholesome food. Of much the same nature is *Kendaloo*, which is sliced thin and boiled in four waters, otherwise it is poisonous. The *Mango-tree*, *Tamarind*, *Kushud*, *Bale*, *Burrel*, *Bayer*, *Mowwah*,
+ *Jamon*,

Jamon, *Phulsah*, *Dwarf Cudjoor*, that yields a bad kind of date, and *Kasnd*, with others peculiar to the hills, grow wild. Their domestic animals are hogs, goats, and fowls, they have also some dogs and cats; the wild animals are in general the same that are met with in the plains, except a species of large deer, and another remarkably small, the former are called *Mauk*, and the latter *Illaroo*.

THE internal government of the hills, or the connection between the *Maungy* and his *Dungarear* (adherents) is a simple engagement for mutual protection. The *Maungy* swears to do them justice in disputes among themselves, and not to suffer them to be oppressed by others, and they, on their part, swear fidelity to him, as long as he shall protect them and do them justice a failure on either part dissolves the contract, in fine, the *Maungy* is no more than *primus inter pares*. The *Dungarear* apply to him for land to cultivate, and he allot it when the crops are ripe, the *Cutzon* and *Phogedar*, on the part of the *Maungy*, repair with the proprietor of each field, to estimate what portion he can afford to give his *Maungy* thus an easy and amicable contribution is levied by the consent of the cultivator, who has no fixed proportion to yield to his chief. If the crops be luxuriant, he willingly gives what he can spare, if scanty, very little is demanded if obstinately refused (a case which seldom or never happens) the *Maungy* cannot forcibly take any part, but, as a punishment, he can prevent this refractory *Dungarear* from cultivating in his territory again. The *Cutual* and *Phogedar* receive a little grain for their trouble, or perhaps the *Maungy* remits their contribution, for these officers, as well as the *Maungy* himself, cultivate their fields. They have no salary, the stations perhaps give them some degree of consequence, and on all trials they either receive some compensation, or are feasted, the latter however, from their disputes in ge-

menal being trivial, is most common. The appointment of *Cutwals*, *Phoedars*, and *Jemmadars*, belong to the *Maungies*, and he can dismiss from office when any of them offend, the *Jemmadar* is merely an honorary officer. I cannot now learn at what period the hill-villages were formed into *Tuppahs*. It seems however to have been an association for mutual protection, for the *Sirdar Maungy*, or chief of a *Tuppah*, receives no contribution from any village but his own, or one in which he resides when appealed to, or applied to for justice, he is paid in proportion to the amount or magnitude of the cause. He could assemble the several *Maungies* with their adherents on any offensive or defensive operations, but could not compel those to act who disapproved of the motives. In their wars, when highlanders were made prisoners, they were either set at liberty, or were ransomed. In their descents into the plains they were not however so merciful, all who opposed them were put to death, those who made no defence, women and children, were stripped of such valuables as they might have, but neither punished nor made prisoners. On such occasions the chastity of women was held inviolable, for it was believed, if any of the assailants committed violence on the persons of females, that he would infallibly lose his reason and die. The bow and arrow is the only arms peculiar to these mountaineers, some few have swords, and still fewer have match-locks, but these probably were collected in their predatory incursions into the plains, either in war or hunting. In general, they use the bow and arrow in the former, but always in the latter, though I do not think they are expert archers, when it is considered they are all hunters from the time they can carry these arms, and are so fond of that diversion, that they go out at all seasons, and undergo great fatigue for the gratification which it affords them. A poisoned arrow is always used in hunting, but never in war,

though

though they generally had them, as it is said, to be prepared for any game that might start.

THERE are no slaves on the hills, slavery can neither be said to have been tolerated, nor forbidden. Parents never sell their children, and those who hire themselves as servants, stay no longer than they agree with or like their masters.

ENOUGH may have been said of their modes of worship they are not the first race of people who, we are taught, believed that the chief means of pleasing the Gods, and of pacifying them when they were angry, consisted in certain ceremonies, sacrifices, and feasts, in the due observance of which they conceive their welfare depends, for, in praying, the suppliant says little more than to recommend himself and family to the Supreme Being and subordinate Deities, and to pronounce oblations at the shrine of the God he then worships, provided he is fortunate, and enabled so to do by his prosperity Their expiatory sacrifices are however confined to the brute creation, there is no instance of their offering up any of the human species to appease the Gods, who are supposed to be abundantly pleased by the votaries feasting as large congregations of men as they can afford to entertain, for, in proportion to the expence in meat and spirituous drink, the piety of the votary is measured The part which the *Demauno*, their oracle, " dreamer of dreams," bears in their ceremonies and forms of worship, has already been described Before a man vows to sacrifice at any shrine, he consults the *Cherrean* and *Satane* when these agree, he repairs to the *Demauno*, without informing him of the result of those two processes, but explains to him the cause of waiting on him the *Demauno* is allowed one, two, and even three nights to confer with the Deity in a vision, to prescribe

scribe what the suppliant ought to do , and, as it is believed he has familiar intercourse with God in his dreams, his decrees are obeyed, though, when they differ from what was discovered by the *Cherreen* and *Satane*, these are held over again to reconcile them. The women neither offer sacrifices, nor approach the shrines of their Gods, even husbands are forbidden to partake of festivals during the separation of their wives. These prohibitory laws regarding women are of an old date, and their origin perhaps not well known

COLONEL BROWN, in his account of these hills, forwarded to government in 1779, observes that it was about fifteen years since the hill - people had any government among themselves of a general nature, during which period they had become dangerous and troublesome to the low country, that their savages had been the more violent, as they were stimulated by hatred against the *Zemindars*, for having cut off several of their chiefs by treachery. The Colonel might have added, that, during that interregnum or dissolution of government, it was a common practice for the *Zemindars* on the skirts of the hills to invite the chiefs in their vicinity, with their adherents, to descend and plunder the neighbouring *Zemindaries*, for which, and for the passage through their lands, the mountaineers divided the booty with them. Thus, at one time, from repeated acts of treachery in the *Zemindars*, the mountaineers were provoked to take ample vengeance on them, and their unhappy ryots, and at other times, from their engaging the chiefs to make predatory incursions, to which they were strongly incited, no less from a desire of plundering their more opulent neighbours, than from the difficulty of obtaining salt and tobacco from the *hauts*, all friendly intercourse was at a stand, the low country bordering on the hills was almost depopulated, and travellers could not pass with

safety between *Bhaugulpoore* and *Furruckabad*, nor could boats, without danger of being plundered, put to for the night on the south side of the *Ganges* between the before-named places. It was at this period of double treachery on the part of the *Zemindars*, and predatory hostilities on the part of the mountaineers (from which it may not be a strained inference, that the machinations of the former were in a great measure the cause of that necessity which compelled the latter to such frequent and fatal descents, when these public and private incendiaries were making large strides in ruining these once fertile districts) that Captain BROOKE was stationed with a corps of light infantry, to avert their utter destruction. On this duty, it is well known that he acquitted himself with great credit, from his uncommon exertions and success in pursuing the unfortunate mountaineers unto their hills, where numbers must have unavoidably fallen, for it became unquestionably necessary to impress them with a dreadful awe of our prowess and in this harrassing and unpleasant warfare, I have been well informed by officers who were with Captain BROOKE, that his gallant conduct could not be too much commended. He made them sensible of the inefficacy of opposing him in the field, and invited the chiefs to wait upon him and negotiate, when he gave a feast to those who came, and made them presents of turbans, but before any permanent establishment took place, he was succeeded in the command of the light infantry by Captain BROWN, who made further progress in conciliating the minds of the discomfitted mountaineers. He placed them on the road from *Furruckabad*, near *Col-gong*, to protect the *Dawks*, on which duty they still continue. From this and other measures of his, Captain BROOKE and he, it will be allowed, laid the foundation for the most permanent and happy settlement concluded with the hill-chiefs by the late Mr AUGUSTUS CLEVELAND, that could possibly be attained. He was sensible, from the rapine and decay of these districts,

that

that the peaceable deportment of the mountaineers ought to be purchased ; and, while he was reconciling them to become subjects to the *British* government, he bestowed liberal presents in money and clothes to the chiefs, and to all the men and women who came down to him. Of his generosity they speak with gratitude, and for the blessings and benefit which they derive from the wise and judicious conditions which he granted, and which were confirmed by government, I hope they will ever have reason to be thankful as long as that government lasts, the comforts and happiness which they derive from them must ever ensure their obedience. To engage their confidence, Mr CLEVELAND, in the early part of his intercourse with the mountaineers, entertained all who offered their services as archers, and appointed many of the relations of the chiefs, officers they were not (nor are they as rangers, though they very seldom now ask their discharges) bound to serve for any limited time, the corps, of course, constantly fluctuated, and was frequently, I understand, above a thousand strong. He clothed them, and in less than two years after they were formed, from the confidence he had in their attachment and fidelity, obtained fire-arms for them, in the use of which, I may venture to observe, that they are expert, and have address, and I can also without hesitation assert, that they are capable of as high a degree of discipline as any native corps in the service, and I trust I shall have the happiness to prove this in due time. Exclusive of having thus employed so many of the mountaineers, Mr CLEVELAND fixed the salary of ten rupees per month for each chief of a *Tuppah*, three rupees ditto for each of his *Nabs*, and two for the *Maungy* of each village, from which there shall be a man enrolled in the hill-rangers, but from such as supply not a man, the inferior *Maungy* receives no monthly allowance. In consideration of these establishments, I understand, the chiefs are not only responsible for the peaceable deportment of their own adherents,

but bound to deliver over all delinquents, and disturbers of the public peace within their own limits, to the collector, to be tried by an assembly of the chiefs, either at *Bhaugulpore* or *Rajamahall*, as already related. It has ever been customary on these occasions to feast the chiefs so assembled. When any report is to be made to the collector, it is the duty of a *Nawb* to wait on him with it, should the chief be indisposed or otherwise prevented.

FROM these happy and admirable arrangements, digested by Mr CLEVELAND, whose name ought to be dear both to the natives of the hills and lowlands, the ease, comfort, and happiness of the former is ensured (for which they are grateful, and speak of him with reverential sorrow) and peace and safety secured to the latter, and if they have any goodness, they ought not to be less thankful. These solid and essential benefits are attended comparatively with but a trivial expence, and must ultimately be an advantage to government. I have been led to say more on this subject than I intended, yet it may not be thought foreign to it, to add, that the *Aumilah* and *Zemindars* erected a monument to the memory of Mr. CLEVELAND, nearly in the form of a Pagoda, and that another was also erected at the expence of government, by the order of the Honourable the Governor-General and Council, on which is the following inscription.

To the memory of AUGUSTUS CLEVELAND, Esq
Late collector of the districts of *Bhaugulpore* and *Rajamahall*,
Who, without bloodshed or the terrors of authority,
Employing only the means of conciliation, confidence, and benevolence,

Attempted and accomplished

The entire subjection of the lawless and savage inhabitants of the jungleterry of *Rajamahall*,
Who had long infested the neighbouring lands by their predatory incursions,
Inspired them with a taste for the arts of civilized life,
And attached them to the *Boss of Government* by a conquest over their minds,

The most permanent, as the most rational, mode of dominion.

The Governor-General and Council of Bengal,

In honour of his character, and for an example to others,

Have ordered this monument to be erected

He departed this life on the 13th day of January —Aged 29.

BEFORE I conclude, I must do the mountaineers the justice to mention, that they have as great a regard for truth as any people on earth, and will sooner die than deliberately tell a falsehood. In this I must confine myself to those who have not associated or mixed in conversation with their neighbours the *Hindoo* and *Musselman* of the plains, where it is well known, lie and interest are synonymous terms and what change in this respect a more familiar intercourse will occasion, I shall not pretend to premise.

THEY are in general of a cheerful disposition, and humane both men and women are remarkably bashful. When asked to sing (their notes are wild and drawling, having a slow cadence, from forte to piano) or dance, they ever answer, that they can do neither without drinking freely, for they are ashamed until they are intoxicated. Like all people in so rude and uncultivated a state, they are passionately fond of all spirituous liquors, and, I am inclined to believe, prefer that which from its strength will inebriate them the soonest. Hence it appears they are not ashamed of being drunk, and in fact their religion promotes it, for a festival would not be much esteemed, that was unattended with a hearty carouse.

I CONCEIVE, instances of remarkable longevity are very rare. I have heard of one man who was said to be more than five score, but, as I have never met with any of them that appeared so old, or that could tell his age, for they keep no account of it, I am inclined to doubt the fact. In a late excursion

excursion with Mr. GRANT into the hills, we saw an old woman, who was said to be of a great age she was a relation to a chief, whose house we were at, and having taken a cheerful glass, with his wives and daughter, of liquors which Mr GRANT had carried up to give them, she set them the example of singing and dancing to us, in which she was followed by the chief and two of his youngest wives, who were at that time far from sober. When we had dined, the meat that remained was given to them, of which, the family being assembled, they thankfully partook, and made indubitably a more luxurious meal than they ever had before We took a route in which no *European* had been, and Mr GRANT, to reconcile them to so novel a sight, as well as to conciliate their attachment, carried up a variety of presents of clothes, beads, and looking-glasses, which he distributed with money to every family in all the villages we passed, and thus left them the most acceptable memorials of their visitors

Bhaugulpore, June 27, 1792

V.

ADDITIONAL REMARKS

ON THE

SPIKENARD OF THE ANTIENTS

BY THE PRESIDENT

Nearly at the time when the result of my first inquiries concerning spikenard was published in the second volume of our *Asiatic Researches*, there appeared in the *Philosophical Transactions* an account of the *Andropoön Jwarāncusa*, the specimen of which Dr. BLANE had received from *Lucnou*, and which he supposes to be the true *Indick nard* of *Dioscorides* and *GALEN*. Having more than once read his arguments with pleasure, but not with conviction, I feel it incumbent on me to state my reasons for dissenting from the learned physician with all the freedom of a searcher for truth, but without any diminution of that respect to which his knowledge and candour justly entitle him.

In the first place, there is a passage in Dr. BLANE's paper, which I could not but read with surprise, not because it is erroneous or disputable (for nothing can be more certain) but because it is decisive against the very proposition which the writer endeavours to support. "Dioscorides mentions "the *Syrrock nard*," says the Doctor, "as a species different from the *Indian*, "which was certainly brought from some of the remote parts of *India*, for "both he and *GALEN*, by way of fixing more precisely the country whence "it came, call it also *Gangites*." We may add, that *Ptolemy*, who, though

though not a professed naturalist, had opportunities in *Egypt* of conversing with *Indian* merchants on every thing remarkable in this country, distinguishes *Rangamati* as producing the true spikenard, and it is from the borders of that very district, if we believe modern *Indians*, that the people of *Buian* bring it yearly into *Bengal**. Now, it is not contended that the new species of *Andropogon* (if it be a new species) may be the *Indick* nard of *DIOSCORIDES*†, because it was found by Mr. *BLANE* in a remote part of *India* (for that solitary fact would have proved nothing), but it is learnedly and elaborately urged, that it must be the true *Indian* spikenard, because it differs only in the length of the stalks from the nard of *GARCIAS*, which, according to him, is the only species of *nardus* exported from *India*, and which resembles a dried specimen seen by *RUMPHIUS*, and brought, he says, among other countries, from *Mackrīn*, or the ancient *Gadrosia*, the very country where, according to *ARRIAN*, the true nard grew in abundance for "the *Pheenicians*," he says, "collected a plentiful store of it, and so much of it was trampled under foot by the army, that a strong perfume was diffused on all sides of them." Now there is a singular coincidence of circumstances, for our *Andropogon* was discovered by the scent of its roots, when they were crushed by the horses and elephants in a hunting-party of the *Passir A SUFUDDAULAH*, so that, on the whole, it must be the same with the plant mentioned by *ARRIAN* but it may be argued, I

* Prole'me'z distingue le canton de *Rangamatti*, en ce qu'il fournit la plante, que nous appellenos *Spic nard*, ce qui peut convenir à *Rangamati*, et des différentes espèces, l'*Indique* est bien la plus estimée.

D'ANV. *Antiq. Geogr. Ind. 81.*

† Dr. *Roxburgh* with great reason supposes it to be the *Marinated Andropogon* of *KORNIG*, who mentions the roots as odorous when sprinkled with water.

See RETZ. III. *Fascie 43*, and p. 21.

think, more conclusively, that a plant, growing with great luxuriance in *Gadrosia*, or *Macran*, which the Doctor admits to be a maritime province of *Persia*, could not possibly be the same with a plant confined to remote parts of *India*, so that, if *GARCIAS*, *RUMPHIUS*, and *ARRIAN* be supposed to have meant the same species ofnard, it was evidently different from that of *DIOSCORIDES* and *GALEN*. The respectable writer, with whose opinions I make no free, but from no other motive than a love of truth, seems aware of a little geographical difficulty from the western position of *Macran*, for he first makes it extend to the river *Indus*, and then infers, from the long march westward and the distresses of *ALVYAND* k's army, subsequent to the discovery of the spikenard, that it must have grown in the more eastern part of the desert, and consequently on the very borders of *Indus*, but, even if we allow *Gadrosia*, or *Galressis*, to have been the same tract of land with *Macran* (though the limits of all the provinces in *Persia* have been considerably changed) yet the frontier of *India* could never with any propriety be carried so far to the west, for not only the *Oritæ* and *Aristæ*, but, according to *MELA*, the whole province of *Arana* were between *Gadrosia* and the *Indus*, and, though *Macran* (for so the word should be written) may have been annexed to *India* by such whimsical geographers as the *Turks*, who give the name of *White Indians* to the *Persians* of *Arachosia*, and of *Yellow Indians* to the *Arabs* of *Yemen*, yet the river *Indus*, with the countries of *Sind* and *Multan* on both sides of it, has ever been considered by the *Persians* and *Arabs* as the western limit of *Hind* or *India*, and *ARRIAN* himself expressly names the *Indus* as its known boundary. Let *Gadrosia*, however, be *Macran*, and let *Macran* be an *Indian* province, yet it could never have been a remote part of *India* in respect of *Europe* or *Egypt*, and, consequently, was not meant by *GALVN* and *DIOSCORIDES*, when they described the true spikenard. It must be admitted, that, if the *Sree* of *RUMPHIUS*, which differs

differs little from the *nardus* of *GARCIAS*, which corresponds for the most part with the new *Andropogon*, was ever brought from the province of *Mackran*, they were all three probably the same plant with the nard of *Arrian*, but, unfortunately, *RUMPHIUS* thought of no country less than of *Persia*, and of no province less than of *Mackran*, for he writes very distinctly, both in his *Latm* and his *Dutsch* columns, that the plant in question grows in *Mackran*, which he well knew to be one of the *Moluccas**. I am far from intending to give pain, by detecting this trifling mistake, and, as I may have made many of greater consequence, I shall be truly obliged to any man who will set me right with good manners, the sacred laws of which ought never to be violated in a literary debate, except when some petulant aggressor has forfeited all claim to respect.

ARRIAV himself can by no means be understood to assert that the *InJum* spikenard grew in *Persia*, for his words are *a fragrant root of nard* †, where the omission of the definite articles implies rather *a nard*, than the *nard*, or the most celebrated species of it, and it seems very clear, that the *Greeks* used that foreign word generically for odiferous plants of different natural orders but *ARRIAV* in truth was a mere compiler, and his credit, even as a civil historian, seems liable to so much doubt, that it cannot be safe to rely on him for any fact in the history of nature. "We can-
"not," says the judicious and accurate *STRABO*, "give easy credence to the
"generality even of contemporary writers concerning *ALEXANDER*, whose
"fame was astonishingly high, and whose historians, preferring wonders to

* *Hi flores sepe, immo vulgo sere, observantur in vetustis Sirree stipibus, qui in Ferrata, Molina, et Mackran crescunt.* Vol 5 Lib 8 Cap. 24 p 182

† *Nardus pugnus illoquar.*

" truth, wrote with secure negligence, well knowing, that, as the farthest
 " limits of *Asia* were the scene of his actions, their assertions could hardly
 " be disproved" Now *ARIAN*'s principal authority was *ARISTOBULUS*
 of *Cassandra*, whose writings were little prized by the antients, and who
 not only asserted, " that *Gadrosia* produced very tall *myrrh*-trees, with the
 " gum of which the *Phoenicians* loaded many beasts" (notwithstanding the
 slaughter of them from the distress of the whole army) but, with the fancy
 of a poet describing the nest of a *phoenix*, placed *myrrh*, *incense*, and *cassia*,
 with *cinnamon* and *spikenard* itself, even in the wilds of *Arabia* " The fruit-
 " fulness of *Arabia*," says *ARIAN*, " tempted the king of *Macedon* to form
 " a design of invading it, for he had been assured that myrrh and frankin-
 " cense were collected from the trees of that country, that *cinnamon* was
 " procured from one of its shrubs, and that its meadows produced spon-
 " taneously abundance of *spikenard*" *HERODOTUS*, indeed, had heard of
cinnamon in *Arabia*, where the *Laurus*, to the bark of which we now give
 that name, was, I verily believe, never seen even the *myrrh* tree does not
 seem to have been a native of *Arabia*, and the public are now informed that
 it was transplanted from *Abyssinian* forests, and has not flourished on the op-
 posite shore, but, whatever be the countries of *myrrh* and *cinnamoo*, we
 may be certain that any learned *Asiab* would laugh at us, if we were to tell
 him that the *Simbulu'l Hind* grew wild in abundance on the plains of *Tahá-
 mah* It seems a bold allegation of *GARCIAS*, that he has exhibited " the
 " only species of *nardus* known in *India*, either for consumption by the oa-
 " tives, or for exportation to *Persia* and *Arabia*" If he meant that any plant
 was either used in this country or exported from it by *the name of nard*, he
 had been strangely deceived, and if he meant, that it was the only fragrant
 grass used here as a medicine, or as a perfume, his error was yet more gross
 But, whatever his meaning might have been, if the *nard* of *GARCIAS* and

of ARIAN was one and the same plant, it is wonderful that it should ever have been exported to *Persia* and *Arabia*, where it grew, we are told, in so great abundance. The *nard* of *Arabia* was, probably, the *Andropogon Schenanthus*, which is a native of that country; but, even if we suppose that the spikenard of *India* was a *reed* or a *grass*, we shall never be able to distinguish it among the many *Indian* species of *Cyperus*, *Andropogon*, *Schaefferia*, *Carex*, and other genera of those natural orders, which here form a wilderness of sweets, and some of which have not only fragrant roots, but even spikes in the ancient and modern senses of that emphatical word, one of them, which I never have seen in blossom, but suppose from its appearance to be a *Schenus*, is even called *Gurando*, and its dry root has a most agreeable odour; another which RHEEDE names *Bulaca*, or *Ramuriam*, or white *lerveli*, and which BURMAN thought a variety of the *Schenanthus*, is a considerable article, it seems, of *Indian* commerce, and therefore, cultivated with diligence, but less esteemed than the black sort, or *Carabbala*, which has a more fragrant root, and affords an extremely odorous oil*. All those plants would, perhaps, have been called *nards* by the antients, and all of them have stronger pretensions to the appellation of the true spikenard, than the *Febrifuge ANDROPOGON*, which the *Hindus* of *Bekar* do not use as a perfume. After all, it is assuming a fact without proof, to assert that the *Indian* spikenard was evidently *gramineus*, and, surely, that fact is not proved by the word *arista*, which is conceived to be of a *Grecian* origin, though never applied in the same sense by the *Greeks* themselves, who perfectly well knew what was best for mankind in the vegetable system, and for what gift they adored the goddess of *Elysium*. The *Roman* poets (and poets only are cited by Dr. BLAKE, though naturalists also are mentioned) were fond of the word

* in Hort. Malab tab 12 and 9 H M. p 145 See also the *Flora Indica*, and a note from HERMAN on the valuable oil of *Sesame*.

arista, because it was very convenient at the close of an hexameter, where we generally, if not constantly, find it, as HOMER declares in LUCIAN, that he began his *Iliad* with *Mū*, because it was the first commodious word that presented itself, and is introduced laughing at a profound critic, who discovered in that single word an epitome of the whole poem on the *wrath of Achilles*. Such poets as OVID and LACTANTIUS, described plants which they never had seen, as they described the nest of the phoenix, which never existed, from their fancy alone, and their descriptions ought not seriously to be adduced as authorities on a question merely botanical, but, if all the naturalists of *Greece* and *Italy* had concurred in assuring us that the *nard* of *India* bore an ear or spike, without naming the source of their own information, they would have deserved no credit whatever, because not one of them pretends to have seen the fresh plant, and they had not even agreed among themselves, whether its virtues resided in the root, or in the *husky leaves* and stalks that were united with it. PIETRO DELLA VALLI, the most learned and accomplished of eastern travellers, does not seem to have known the *Indian* spikenard, though he mentions it more than once by the obsolete name of *Spigonardo*, but he introduces a *Sumbul* from *Khatib*, or a part of *Chma*, which he had seen dry, and endeavours to account for the *Arabic* name in the following manner — “ Since the *Khattian Sumbul*,” says he, “ is not a spike, but a root, it was probably so named, because the word *Sumbul* may signify, in a large acceptation, not only the spike, but the whole plant, whatever herb or grass may be sown; as the *Arabic* dictionary*, entitled *Kēmūs*, appears to indicate ” The passage, to which he alludes, is thus —

* Giacché il *Sembul* del *Catane* è radice e non è Spiga, potremmo dire, che così si chiama, perché forse la parola *Sembul* possa più largamente significare non solo la spiga, ma tutta la pianta di ogni erba à bisbia, che si sementa, come par, che il *Catane*, vocabolario *Arabico*, ne dia Indizio.

Lett. 18 di Bagdad.

“ *SUMBUL*.”

"*SUMBUL*," says the author of the *Kāmīs*, "is an *odoriferous plant*, the strongest of which is the *Siri*, and the weakest the *Hindi*; but the *Sumbul* of *Rum* has the name of *nardin*." I suggested in my former paper, and shall repeat in this, that the *Indian* spikenard, as it is gathered for use, is in fact *the whole plant*, but there is a better reason why the name *Sumbul* has been applied to it. By the way, DELLA VALLE sailed, as he tells us, along the coast of *Macrūn*, which he too supposes to have been a part of *Gedrosia*, but he never had heard that it produced *Indian* spikenard, though the *Persians* were fully acquainted with that province, for he would not have omitted so curious a fact in his correspondence with a learned physician of *Aigles*, for whose sake he was particularly inquisitive concerning the drugs of *Asia*. It is much to be wished that he had been induced to make a short excursion into the plains of *Macrūn*, where he might have found, that the wonderful tree which *Arabian* places in them, *with flowers like violets, and with thorns of such force and magnitude, as to keep wild beasts in capivity, and to transfix men on horseback who rode by them inadvertently*, was no more, probably, than a *Mimosa*, the blossoms of which resembled violets in nothing but in having an agreeable scent.

LET US return to the *Arabs*, by whom DIOSCORIDES was translated with assistance, which the wealth of a great prince will always purchase, from learned *Greeks*, and who know the *Indian* spikenard better than any *European*, by the name of *Sumbulu'l Hind*. It is no wonder that they represent it as weaker in scent and in power than the *Sumbul* of the Lower *Asia*, which, unless my smell be uncommonly defective, is a strong *Valerian*, especially as they could only have used the dry nard of *India*, which loses much of its colour between *Bengal* and *Calcutta*. One question only remains (if it be a question) whether the *Sumbulu'l Hind* be the true *Indian* spikenard? for in that case, we know

the

the plant to be of the natural order, which LINNÆUS calls *aggregate*. Since the publication of my paper on this subject, I put a fair and plain question severally to three or four Musselman physicians "What is the *Indian name* of the plant which the *Arabs* call *Sumbulu'l Hind*?" They all answered, but some with more readiness than others, *Jatamansi*. After a pretty long interval, I shewed them the *spikes* (as they are called) of *Jatamansi*, and asked, what was the *Arabic name* of that Indian drug? They all answered readily, *Sumbulu'l Hind*. The same evidence may be obtained in this country by any other *European* who seeks it, and if among twelve native physicians, versed in *Arabian* and *Indian* philology, a single man should, after due consideration, give different answers, I will cheerfully submit to the *Roman* judgment of *non liquet*, my own inquiries having convinced me, that the *Indian* spikenard of DIOSCORIDES is the *Sumbulu'l Hind*, and that the *Sumbulu'l Hind* is the *Jatamansi* of AMARSINH. I am persuaded, that the true nard is a species of *Valerian*, produced in the *most remote* and hilly parts of *India*, such as *Nipal*, *Morang*, and *Butan*, near which PROLEMY fixes its native soil. The commercial agents of the *Dewardya* call it also *Pampi*, and, by their account, the dried specimens which look like the tails of eumires, rise from the ground, resembling ears of green wheat, both in form and colour - a fact which perfectly accounts for the names *Stachys*, *Spica*, *Sumbu'l*, and *Khishshah*, which Greeks, Romans, Arabs, and Persians have given to the drug, though it is not properly a *spike*, and not merely a root, but the whole plant, which the natives gather for sale, before the radical leaves, of which the fibres only remain after a few months, have unfolded themselves from the base of the stem. It is used, say the *Butan* agents, as a perfume, and in medicinal unguents, but with other fragrant substances, the scent and power of which it is thought to increase - as a medicine, they add, it is principally esteemed for complaints in the bowels. Though considerable quantities of *Jatamansi* are brought

brought in the caravans from *Butan*, yet the living plants, by a law of the country, cannot be exported without a licence from the sovereign, and the late Mr. PURLING, on receiving this intelligence, obligingly wrote, for my satisfaction, to the *Devardyā*, requesting him to send eight or ten of the plants to *Rangpur*: ten were accordingly sent in pots from *Tassidau*, with as many of the natives to take care of them, under a chief, who brought a written answer from the *Rajā* of *Butan*, but that prince made a great merit of having complied with such a request, and my friend had the trouble of entertaining the messenger and his train for several weeks in his own house, which they seem to have left with reluctance. An account of this transaction was contained in one of the last letters that Mr. PURLING lived to write; but, as all the plants withered before they could reach *Calcutta*, and as inquiries of greater importance engaged all my time, there was an end of my endeavours to procure the fresh *Jasimansi*, though not of my conviction, that it is *the true nard of the antients*.

VI.

ON THE DHANESA, OR, INDIAN BUCEROS.

BY LIEUT CHARLES WHITE

COMMUNICATED BY LIEUT. FRASER.

THERE are two distinct species of this bird, one called *Begma Dianase*, and the other *Puteal Dianase*.

I SHALL first treat of the *Begma*, which is divided into two kinds, the specific marks of which I shall hereafter mention.

The *Begma Dianase* is a very remarkable bird, and, I believe, has not hitherto been described. As far as lies in my power I shall endeavour to rescue it from a situation so unworthy the distinction it has a strong claim to among the curious productions of nature.

It may be necessary to premise, that the names of *black-horned* and *white-horned* are given by myself, the natives not making any distinction between them. I have bestowed upon them these names from the difference of the bases of their horns.

BLACK-HORNED *Begma Dianase*, with a large double beak, or a large beak surmounted by a horn shaped like the upper mandible, which gives it the appearance of a double beak. The horn is hollow, at the base brown, with a broad edging of black, quite hard, a black mark runs from about

one inch from the base to the point of the horn, very irregular in its breadth, in the centre reaches to the junction of the horn with the upper mandible, upper and lower mandible serrated, and separate from each other about three inches in the middle of the beak longitudinally, upper mandible marked with black at its junction with the head, which part is quite hard, immediately below this the lower mandible has a large black mark, which appears on both sides, and joins at the bottom, joining to this, and covering the base of the lower mandible, is about an inch of white shrivelled skin, between these, at the edge of the mandible, is a small brown spot covered slightly with feathers, the rest of the beak and horn cream colour, patched with yellow, except the point, which is much whiter, the nostril placed at a small distance from the head, in the junction of the horn with the beak, head, neck, back, and coverts of the tail, black, breast, belly, thighs, and coverts of the vent, white, scapulars, greater and lesser coverts of the wings, black, varying to a greenish tinge, under coverts of the wings, white, primaries, white at their base, then black, with three inches of white at their ends, secondaries, nearly the same, tertials black, a few white feathers on the outward edge of the wing, just below the shoulder, tail cuneiform, two middle feathers black, longer than the rest, which are white, four on each side, crested, close, the feathers extending a little way down the neck, eye, speculum black, irides reddish brown, the cheek immediately round the eye, and extending from the beak to the ear, devoid of feathers, consisting of a shrivelled skin, which is nearly black, ear-feathers about an inch long, extending partly across the head, tongue short, formed like a dart, with the ears of the batb raised above the shaft, near the epiglottis it swells to the size of a small nutmeg, which part is perforated, when the mouth is open, a black and brown knob appears below the upper mandible, rising from its base to an inch beyond its apparent junction with the head, legs and feet black, tinged with brown,
and

and dirty white, claws large and strong, three in front, and one behind, length, upon an average, from the forehead to the tip of the tail, two feet eight inches, extent, three feet two inches.

WHITE-HORNED *Buceros Dumnase*, agreeing with the former in description, except in the following particulars—the horn in these is generally smaller, and blunter at the point, and at the base it is soft, consisting of a membranous substance, the ground white, marked with crimson, the skin, which covers the base of the lower mandible, is very differently shaped, and is much stained with crimson, only a small spot of black upon the upper mandible, where it joins the head, which junction is soft, eye black, the skin round the eye, extending to the ear, white, marked with crimson—the ear-feathers form a curve, beginning in the centre of the black mark of the lower mandible, running along it, and rising above the ear, where it joins the crest. In some I have observed the white tail-feathers marked in the web with black at their base. These birds in size are rather smaller than the first.

PURPLE *Dumnase*, with a double beak, or horn, upon the upper mandible, over which it curves about half way, base hid in feathers, horn black, except at the lower edge, near the point, which is brown, the upper mandible black in the middle, shaded off to white at the point, lower mandible the same, white at the bottom, both serrated, a small black projection from the bottom of the lower mandible crested, cinereous, tinged with brown; the feathers, from the eye to an inch over the beak, iron-grey, dashed with brown, ear-feathers dark iron-grey, forming a curve from the lower part of the eye, extending nearly across the head, under the crest, back grey, neck the same, much lighter, breast, belly, thighs, and coverts of the vent, white; coverts of the tail, greyish brown, scapulars, greater and lesser coverts of the

wings, lead colour, primaries at the base of the web, black, then dark grey, edged with white, each primary white at the end, near an inch, secondaries nearly the same, tertial greyish brown, under coverts of the wings, white, tail cuneiform, very long, two middle feathers reddish brown, longer than the rest, which are ferruginous, tipped with near an inch of white, above which is a mark much larger, black, eye, speculum black, irides reddish brown, from the beak to the ear-feathers, and round the eye, bare, this part is black, legs and feet black, marked with dirty white at the joints, claws large and strong, length two feet five inches, from the tip of the beak to the tip of the tail, extent two feet four inches

The last of these birds is to be met with in almost every part of the country, more particularly where there are jungles I have seen a variety of them at *Burragong* in *Sicas Sarun*, where, instead of the horn, they had a large knob at the base of the beak, very much resembling that of a wild goose. The one I have attempted to give a description of, was brought to me at *Midnapore*, in which province, and the extending hilly country, they abound I have seen them in the vicinity of *Sbeergotij*,

The *Begma Dusmase* chiefly inhabits the western range of hills, extending from *Neelgur* through *Mohurbunge*, *Midnapore*, *Rangur*, *Rotas*, towards *Bidziger*. In *Rangur*, I have been informed by an intelligent person, they are to be seen in abundance He told me that he had seen crowds of them on the *Peepul*-trees, the berry of which they feed upon at times. Their note, or voice, in concert, has a strong resemblance to the mournful cries of monkeys, for which this person, deceived by the sound, at first took them. The place where I met with them, was at *Midnapore*, in the jungles adjacent to which they are to be found from the month of *November* to the month of

March only, at which time they retire to the hills to breed I should have been highly pleased could my curiosity have been gratified in the enquiries I made respecting the economy of this extraordinary bird, but the people I had to deal with were poor ignorant folk, from whom I could gain but little information I therefore can do little more than ascertain one curious fact, and display some qualities of the bird, which may hereafter be of benefit, if thoroughly investigated by some person of medical skill

THESE birds have a most remarkable appearance when in the act of flying, from the great size of their beaks, and length of tail I have seen several of them in this state, and a more uncouth object I never beheld The beak, which forms the most prominent feature in this strange bird, may be considered as one of the most uncommonly curious among the feathered tribe. The *Toucan*, the *Spoonbill*, the *Pelican*, the *Dodo*, and others, certainly claim the attention of the naturalist, but in my humble opinion the *Buceros* has merits far superior, on the ground of rarity The largest beak I ever saw was produced from a bird shot at a place called *Kullar*, about nine miles from *Madras*. The following is the measurement

	Inches.
Length of the beak in a straight line from its junction with the head	$8\frac{1}{2}$
Length of the horn from the base to the point	$8\frac{1}{2}$
Depth of the whole beak, including the horn, near	$6\frac{1}{2}$
The horn to its junction with the upper mandible	$2\frac{1}{2}$
Each mandible in the centre of the beak	1
Distance from the point of the horn to the point of the beak	3

It may be proper to observe here, that the beak forms a much greater curve than the horn, the point of which is parallel to its junction with the beak, whereas the point of the beak comes down an inch and a quarter

below the lower mandible. The following is the measurement of the bird to which this beak belonged.

			Feet.	Inches.
Length from the forehead to the tip of the tail	-	-	2	9
Circumference in the thickest part	-	-	0	15
Neck, from the chin to the shoulder	-	-	0	6
Body, from the shoulder to the rump	-	-	1	0
Tail, from the rump to the point	-	-	1	1
Height and breadth of the head	-	-	0	5½
Circumference of the neck in the middle	-	-	0	6
Length of the wing, when closed	-	-	1	½
Ditto when open	-	-	1	5½
Extent when expanded from tip to tip	-	-	3	3
Length of the legs	-	-	0	15
Ditto of the toes	-	-	0	2½
Ditto of the claws, largest	-	-	0	0½
Circumference of the legs	-	-	0	1½

I HAVE to regret that I did not weigh this bird indeed at the time, I had no idea that I should attempt the description of it, I can only therefore venture to guess that it might weigh about six or seven pounds I took a drawing of the bird, which has enabled me to give the above account

I ENDEAVOUR'D to acquire some information from the bird-catchers respecting the use of the horn, upon the idea that *nature forms nothing in vain*, but all that I could learn was unsatisfactory, and amounted to little more than this one of the beaks was brought to me with the horn very much worn at the point, which they told me proceeded from the birds striking it against the trees, but for what particular purpose they so applied it, they could give no clear account.

BUT

But what may be probably deemed the most extraordinary circumstance relating to this curious bird, is its feeding upon the *Nux vomica*. This is a point which I have been able clearly to ascertain. One of these birds, purchased by Capt. JOHN CAMPBELL, was opened, by his orders, before several respectable gentlemen at *Madras* and in its craw were found several seeds of the *Nux vomica*. With respect to my own observation, I have had only one opportunity of seeing the contents of the craw, which was that of the bird shot at *Kullar*. Nothing was found in it but the remains of an egg, and some weeds but to carry on the enquiry, that I might be able safely to assert what appeared to me a circumstance of great curiosity, I asked the bird-catchers what these birds fed upon. They very particularly mentioned a fruit called *Cochla*. Agreeably to my directions, they brought it to me. It was about the size of a lime, of an orange colour, with a very hard skin, shining and almost smooth. It contained a pulpy substance, distinct and separate from the shell. Conversing since with a man who had been in Major CRAWFORD's corps at *Jelda*, who had seen great numbers of these birds in the surrounding hilly country, I enquired of him what they fed upon. He said, sometimes upon the berry of the *Peepal*-tree, but that the food they affected most, and with which they were most delighted, was the *Coochla*, which he said was to be had in every *bazar*. He brought me some of it. It proved to be the true *Nux vomica*, which, from an account given to me by a native, is produced from the fruit above mentioned. The pulpy substance drying, leaves one, two, and sometimes three of the flat seeds, which are known as the *Nux vomica* and this agrees with the account given of it by CASPAR NEUMAN in his *Chemical Works*, who says, " *Nux vomica*, so called, is not a nut, but the seed of a fruit, like an orange, growing in the *East Indies*" The tree which produces the *Coochla*, abounds in the range of western hills before mentioned it varies in its size, sometimes attains to a considerable height,

height, has a leaf nearly shaped like a heart It appears from what I have said, that these birds feed not only upon the seed, when it has arrived at a state of maturity, but that they also eat it in the state it was brought to me by the bird-catchers; and, that when the *Cochla* is not to be had, they resort to other food. These birds, at particular seasons, grow very fat, and this season appears to be when the fruit of the *Nux vomica* prevails, about the month of *December*. The one before mentioned, shot at *Kullar*, was killed in that month, and was very fat. The natives make use of the fat, and also of the flesh and bones, as a medicine They apply both species to this purpose The cases they use it in are, in the contractions, which sometimes proceed from catching cold after the profuse use of mercury it is applied to alleviate and remove violent pains, that often succeed venereal complaints, called by the natives *Gutta Le Azar* it is also used by the natives in very cold weather, when the pores of the skin are affected, for, being in its nature extremely hot, in this case it causes a free perspiration. The *Bægma* is preferred to the *Patteal*, as being deemed more efficacious The mode they apply it in is this. they reduce the fat to an ointment, at the same time mixing with it every kind of spice, pepper, cloves, cardamums, &c the flesh is also mixed in the same manner. The ointment is rubbed into the part affected every night when they go to sleep, and a certain portion of the meat is eaten in the morning rising the gall is also used by the native women in cases of sterility. They take it either infused in water, or mix it with their *Patous*, and of the efficacy of this they have the firmest reliance under Providence. I enquired of the person who gave me this account, whether he had ever known any one who had been benefitted by this medicine . he told me that he was acquainted with a man who had used it in contractions of his limbs, and that this person declared he had derived great advantage from the application. At any rate, it is certainly an opinion generally adopted by the natives, that it is of great use in the cases I have mentioned

With every one with whom I have conversed, the medicinal properties of this extraordinary bird are held in the highest estimation they speak of it with a degree of admiration bordering on enthusiasm. Thus I have endeavoured, from the slight ability I possessed, to bring forward to public notice one of the most curious birds I have ever seen or heard of. Some allowance, I trust, will be made, from the consideration that this is my first essay perhaps I should never have made the attempt but from having taken a drawing of the bird, and having heard of its feeding upon the *Nux vomica*. these circumstances induced me to give the above account. WOLF, in his description of *Ceylon*, has the following words "a very rare species too of cock is found here, called Double-billed this has a white double bill, which is almost as large as the bird itself." It is by no means improbable that this may be the same bird which I have given an account of the beak of the *Begma Drimase*, particularly when in the act of flying, appears to be as large as the bird itself, the depth in measurement is nearly the same It is impossible to form any reasonable conjecture respecting the use of the horn that some it must have, may naturally be supposed, but what, must be left to the future investigation of some one whose situation will afford him full opportunity of making the inquiry it is certainly an object worthy of attention, more particularly so, as tending to elucidate the wisdom of the Supreme Being, who undoubtedly creates nothing in vain.

REMARK BY THE PRESIDENT

THOUGH the genus of the DHAVE'SA be already known to our naturalists by the appellations of *Buceros*, *Calao*, and *Hornbill*, and though even the several species be distinguished, I believe, with exactness, yet we are obliged to

to Lieut. Waite for a complete description of so extraordinary a bird, and for our knowledge of the singular fever which he first made publick. The hollow protuberance at the base of the upper mandible has been supposed, with reason, by COUNT D'EGE, to serve as a receptacle for acridities which the natives, I find, consider as a natural means to supply the bird with water in the dry season, and, for such encounters; whence the name of Dhane'ra, or Lord of Wealth, may possibly have been given it. The Codat had been informed that it was no other than the Garuda of Indian Mythologists, but the Pandits unanimously assure me, that, by the word Garuda, they mean in common discourse the Gridhar, or King of Vultures; and they have a curious legend of a young Garuda, or Eagle, who burned his wings by soaring too near the sun, on which he had fixed his eyes. The bird of Vishnu is in fact wholly mythological; and I have seen a painted in the form of a boy with an Eagle's plumage. As to the Chakil (for so is the word written, and correctly pronounced) it is, no doubt, the STRYCHNOS Nut known as Culibrina, for they are now thought *specifically* the same. The leaves and fruit of both the varieties were brought to me by a Brahman as those of the Cockle, and he repeated a Sanscrit verse, in which it was called *Vana-raja*, or King of the Forest. but, according to an approved comment on the Amoresch, it has four other names, amongst which *Caleca* is the smoothest; so that the first true species of this genus may be named Strychnos Caleca, and the second Strychnos Cataca; by which denomination it is mentioned in the Laws of MENU, where allusion is made to the Indian practice of clearing water, by bruising one of the seeds, and casting it into the jar, *vakore*, says KORNIG, *all impurities are in a few moments precipitated, and the water becomes perfectly limpid.*



VII.

ON THE ISLANDS NANGOWRY AND COMARTY

BY LIEUT. R. H. COLEBROOKE.

THE island of *Nangouri*, or *Nangy*, as it is sometimes called, is ~~is~~ ^{regularly} situated among the *Ambae* isles. Its length may be about eight miles, and its breadth nearly equal. The island of *Comarty*, which lies near it, is more extensive, but does not perhaps contain more solid land, being excavated by a very large bay from the sea. The space between the two islands forms a capacious and excellent harbour, the eastern entrance of which is sheltered by another island, called *Trikut*, lying at the distance of about a league. The inlet from the west is narrow, but sufficiently deep to admit the largest ships when the wind is fair.

The *Dives* have long maintained a small settlement at the *Pointe* ^{on} the ~~ends~~ ^{lands} on the northemmost point of *Nangouri*, within the harbour. A scimet and three or four soldiers, a few black slaves, and two rusty old pieces of ordnance, compose the whole of their establishment. They have here two houses, one of which built entirely of wood, is their habitation, the other, formerly inhabited by their missionaries, serves now for a storehouse.

The *islands* are in general woody, but contain likewise some patches of clear land. In the umbras of their hills the prospects are often very

tiful and romantic. The soil is rich, and probably capable of producing all the various fruits and vegetables common to hot climates. The natural productions of this kind, which mostly abound, are cocoa-nuts, *papias*, plantains, limes, tamarinds, beetle-nuts, and the *mel'sri**, a species of bread-fruit, yams, and other roots, are cultivated and thrive, but rice is here unknown. The *sangostain*-tree, whose fruit is so justly extolled, grows wild, and pine apples of a delicious flavour are found in the woods.

THE *Nicobar* isles are but thinly inhabited, and some of them are not inhabited at all. Of those we visited, *Nancowry* and *Comarty* appeared to be the best peopled. There were thirteen villages, we were told, upon both islands, each village might contain, upon an average, fifty or sixty people; so that the whole population of these two will scarcely amount to eight hundred.

THE natives of *Nancowry*, and of the *Nicobar* islands in general, live on the sea shores, and never erect their habitations inland †. Their houses are of a circular form, and are covered with elliptical domes, thatched with grass and the leaves of cocoa-nut. They are raised upon piles to the height of six or eight feet above the ground, the floor and sides are laid with planks, and the ascent is by a ladder. In those bays or inlets which are sheltered from the surf, they erect them sometimes so near the margin of the water as to admit the tide to flow under, and wash away the ordure from below.

* Mr. FONTANA has given an accurate and learned description of this fruit. Vide *Austral Researches*, 3d vol. p. 161.

† The great *Nicobar* island is perhaps an exception, where, it is said, a race of men exists, who are totally different in their colour and manners. They are considered as the *Aborigines* of the country. They live in the interior parts, among the mountains, and commit frequent depredations on the peaceable inhabitants of the coasts.

In front of their villages, and a little advanced in the water, they plant beacons of a great height, which they adorn with tufts made of grass, or the bark of some tree. These objects are discernible at a great distance, and are intended probably for landmarks, their houses, which are overshadowed by thick groves of cocoa-nut trees, seldom being visible from afar.

THE *Nicobareans*, though indolent, are in general robust and well limbed. Their features are somewhat like the *Malais*, and their colour is nearly similar. The women are much inferior in stature to the men, but more active in all domestic affairs. Contrary to the custom of other natives, they shave the hair of their heads, or keep it close cropt, which gives them an uncouth appearance, in the eyes of strangers at least. The dress of both sexes, their mode of life, and some of their customs, have been so ably described by Mr. FORBES, that little needs to be said of them here. I have only to state, in addition, an extraordinary ceremony which they annually perform, in honour of the dead.

ON the anniversary of this festival, if it can be so called, their houses are decorated with garlands of flowers, fruits, and branches of trees. The people of each village assemble, dressed in their best attire, at the principal house in the place, where they spend the day in a convivial manner, the men, sitting apart from the women, smoke tobacco and intoxicate themselves, while the latter are nursing their children and employed in preparations for the mournful business of the night. At a certain hour of the afternoon, announced by striking the *Gong**, the women set up the most dismal howls and lamentations, which they continue without intermission till about sun-set,

* An instrument of brass, somewhat like the *Gharry* of Bengal. Its sound is more hollow.

when the whole party get up, and walk in procession to the burying-ground. Arrived at the place, they form a circle around one of the graves, when a stake, planted exactly over the head of the corpse, is pulled up. The woman who is nearest of kin to the deceased, steps out from the crowd, digs up the skull, † and draws it up with her hands. At sight of the bones, her strength seems to fail her, she shrieks, she sobs, and tears of anguish abundantly fall on the mouldering object of her pious care. She clears it from the earth, scrapes off the festering flesh, and laves it plentifully with the milk of fresh cocoa-nuts, supplied by the bystanders, after which she rubs it over with an infusion of saffron, and wraps it carefully in a piece of new cloth. It is then deposited again in the earth, and covered up, the stake is replanted, and hung with the various trappings and implements belonging to the deceased. They proceed then to the other graves, and the whole night is spent in repetitions of these dismal and disgusting rites.

On the morning following, the ceremony is concluded by an offering of many fat swine, when the sacrifice made to the dead affords an ample feast to the living. They besmear themselves with the blood of the slaughtered hogs, and some, more voracious than others, eat the flesh raw. They have various ways however of dressing their meat, but always eat it without salt. A kind of paste made of the *melori*, serves them for bread, and they finish their repast with copious potations of *taury*.

† We were present at the ceremony on the 1st of February, 1790, when the first skull we saw was that of a woman, who had been buried but a few months before. It was then dug up for the first time by her daughter. This office, we are told, is always performed by the women, whichever sex the skull belongs to. A man in a fantastic garb officiates as priest.

THE *Nicobareans* are hospitable and honest, and are remarkable for a strict observance of truth, and for punctuality in adhering to their engagements. Such crimes as theft, robbery, and murder, are unknown in these islands, but they do not want spirit to revenge their injuries, and will fight resolutely and slay their enemies, if attacked or unjustly dealt with. Their only vice, if this failing can be so called, is intemperance, but in their cups they are generally jovial and good-humoured. It sometimes however happens at their feasts, that the men of different villages fall out, and the quarrel immediately becomes general. In these cases they terminate their differences in a pitched battle, where the only weapons used are long sticks, of a hard and knotty wood. With these they drub one another most heartily, till, no longer able to endure the conflict, they mutually put a stop to the combat, and all get drunk again.

* We were informed, that a party of *Malays* had once landed at *Nancowry*, to commit depredations, and were cut off to a man by the enraged inhabitants. A similar instance of vengeance is said to have happened at the island *Carsesar*, when they put to death some sailors who were plundering their houses, and probably attempting to violate their women.

The Lemur or Sloth-faced Lemur



*The Yak of Tartary called Serra-gy
or Bushy Tailed Bull of Siberia*

ON THE LORIS, OR SQUIRREL-FACED LEMUR.

THE singular animal, which most of us saw alive and of which I now lay before you a perfectly accurate figure, has been very correctly described by LINNEUS, ~~descriptio~~, and would have been a juster epithet than *aswile* for the *bent claws* on the hinder fingers, and that *the size of a squirrel* seems an improper, because it does not measure its configuration and colours are particularized also with great accuracy by M DAUBENTON, but the short account of the *Loris* by M DE BUFFON, appears unsatisfactory, and his engraved representation of it has no resemblance to nature, so little that, when I first saw it, I could hardly believe it to be a quadruped. In 1760, when I was at Paris, I passed over the chapter on the *Loris* in the *Natural History* of LINNEUS, and, by seeing in a note the *Linnean* character of the author, I recollect that he was a famous French naturalist, whom, even when we were young, we cannot but name with admiration, and who, in his *Observations on the Loris*, gives us, from the proportion of its body and limbs, and the form of its head, a very exact idea of the animal, and intimates an opinion respecting the power of the shoulder of the *Loris*, from some fancied resemblance of the arm to the arm of a man, which may be remarkably long, and which, in consequence of the long fingers, or more properly arms, much longer than those before, yet the *Loris*, in fact, walks or climbs

climbs very slowly, and is, probably, unable to leap. Neither its genus nor species, we find, are new yet, as its temper and instincts are undescribed, and as the *Natural History* by M. DE BUFFON, or the *System of Nature* by LINNAEUS, cannot always be readily procured, I have set down a few remarks on the *form*, the *manners*, the *name*, and the *country* of my little favourite, who engaged my affection while he lived, and whose memory I wish to perpetuate

I THIS male animal had four hands, each five-fingered, palms naked, nails round, except those of the indices behind, which were long, curved, pointed, hair very thick, especially on the haunches, extremely soft, mostly dark grey, varied above with brown and a tinge of russet, darker on the back, paler about the face and under the throat, reddish towards the rump, no tail, a dorsal stripe, broad, chesnut-coloured, narrower towards the neck, a head almost spherical, a countenance expressive and interesting, eyes round, large, approximated, weak in the day-time, glowing and animated at night, a white vertical stripe between them, eye-lashes black, short, ears dark, rounded, concave, great acuteness at night, both in seeing and hearing, a face hairy, flattish, a nose pointed, not much elongated, the upper lip cleft, canine-teeth, comparatively long, very sharp

MORE than this I could not observe on the living animal, and he died at a season when I could neither attend a dissection of his body, nor with propriety request any of my medical friends to perform such an operation during the heats of August; but I opened his jaw and counted only two incisors above, and as many below, which might have been a defect in the individual, and it is mentioned simply as a fact, without any intention to censure the generic arrangement of LINNAEUS

II. In his manners he was for the most part gentle, except in the cold season, when his temper seemed wholly changed, and his Creator, who made him so sensible of cold, to which he must often have been exposed even in his native forests, gave him, probably for that reason, his thick fur, which we rarely see on animals in these tropical climates. To me, who not only constantly fed him, but bathed him twice a week in water accommodated to the seasons, and whom he clearly distinguished from others, he was at all times grateful, but, when I disturbed him in winter, he was usually indignant, and seemed to reproach me with the uneasiness which he felt, though no possible precautions had been omitted to keep him in a proper degree of warmth. At all times he was pleased with being stroked on the head and throat, and frequently suffered me to touch his extremely sharp teeth, but at all times his temper was quick, and, when he was unseasonably disturbed, he expressed a little resentment by an obscure murmur, like that of a squirrel, or a greater degree of displeasure by a peevish cry, especially in winter, when he was often as fierce on being much importuned, as any beast of the woods. From half an hour after sunrise to half an hour before sunset, he slept without intermission, rolled up like a hedge-hog, and as soon as he awoke, he began to prepare himself for the labours of his approaching day, licking and dressing himself like a cat an operation which the flexibility of his neck and limbs enabled him to perform very completely, he was then ready for a slight breakfast, after which he commonly took a short nap, but when the sun was quite set, he recovered all his vivacity. His ordinary food was the sweet fruit of his country, plantains always, and mangos during the season, but he refused peaches, and was not fond of mulberries, or even of guavas, milk he lapped eagerly, but was contented with plain water. In general he was not voracious, but never appeared satiated with grasshoppers, and passed the whole night, while the hot season lasted, in prowling for them. When

a grasshopper, or any insect, alighted within his reach, his eyes, which he fixed on his prey, glowed with uncommon fire, and, having drawn himself back to spring on it with greater force, he seized the victim with both his fore-paws, but held it in one of them while he devoured it. For other purposes, and sometimes even for that of holding his food, he used all his paws indifferently as hands, and frequently grasped with one of them the higher part of his ample cage, while his three others were severally engaged at the bottom of it, but the posture of which he seemed fondest, was to swing with all four of them to the upper wires, his body being inverted, and in the evening he usually stood erect for many minutes, playing on the wires with his fingers, and rapidly moving his body from side to side, as if he had found the utility of exercise in his unnatural state of confinement. A little before day-break, when my early hours give me frequent opportunities of observing him, he seemed to solicit my attention, and if I presented my finger to him, he licked or nibbled it with great gentleness, but eagerly took fruit when I offered it, though he seldom eat much at his morning repast. When the sun, at night, has wrought, his eyes lost their lustre and strength, and he composed himself for a slumber of ten or eleven hours.

III. THE names *Loris* and *Lemur* will, no doubt, be continued by the respected copies of BUFFON and LINNÆUS, nor can I suggest any other, since the *Pandus* knows little or nothing of the animal. The lower *Hindus* of course generally call it *Lashmar*, or the Bashful Ape, and the *Muselees*, retaining the sense of the epithet, give it the absurd appellation of a Cat, but it is neither a cat nor bashful, for though a *Pantit*, who saw my *Lemur* by day-light, remarked that he was *Layalan*, or modest (a word which the *Hindus* apply to all *sensitif* plants), yet he only seemed bashful, while in fact he was dim-sighted and drowsy, for at night, as you perceive by his figure,

figure, he had open eyes, and as much boldness as any of the *Lemures*, poetical or *Linnæan*.

IV As to his country, the first of the species that I saw in *India* was in the district of *Tierra*, properly *Tripura*, whether it had been brought, like mine, from the *Garrow mountains*, and Dr *ANDERSON* informs me, that it is found in the woods on the coast of *Coromandel*. Another had been sent to a member of our society from one of the eastern isles, and tho' the *Loris* may be also a native of *S. lín*, yet I cannot agree with M^r *DE BUFFON*, that it is the minute, sociable, and docile animal mentioned by *TREVERST*, which it resembles neither in size nor in disposition.

My little friend was, on the whole, very engaging, and when he was found lifeless, in the same posture in which he would naturally have slept, I consoled myself with believing that he had died without pain, and lived with as much pleasure as he could have enjoyed in a state of captivity.

IX.

ASTRONOMICAL OBSERVATIONS MADE IN THE UPPER PARTS OF HINDOSTAN, AND ON A JOURNEY THENCE TO OUJEIN.

BY WILLIAM HUNTER, ESQ

BEFORE delivering the following observations, it will be proper to give some account of the instruments with which they are made. The altitudes for determining latitudes and time, were taken with a sextant of ten inches radius, made by TROLCHION; the limb is divided into degrees and thirds of a degree, and the divisions on the vernier go to half minutes, so that, by the help of the magnifying lens, a difference of ten seconds is sufficiently perceptible. The two specula, being screwed down in their places, do not (as far as I can discover) admit of the principal or vertical adjustment, but the error was almost daily ascertained by the double mensuration of the sun's diameter, and constantly allowed for. It is subtractive, and my determination of its quantity varied from $2^{\circ}30'$ to $3^{\circ}30''$. These differences may have in part arisen from a real variation in the quantity of this correction, but I ascribe them chiefly to some inaccuracy in my mensuration of the sun's diameter. To form some judgment of the influence this cause might have, I have examined twenty-three of those measurements, made between the 7th of March and the 7th of June (being all of which I have any record) by taking the medium of the sun's diameters, as measured on the limb, to the right and left of zero, and comparing it with the diameter for that day, as laid down in the *Ephemeris*. It will appear, from a list of those observations, that my measurements commonly exceeded those given in the *Ephemeris*, but the greatest excess was $24''$.

MENSURATIONS OF THE SUN'S DIAMETER.

1792.	Adjustment of Sextant Subtract	Difference of the Sun's Diameter, measured from that in the Ephemeris
March 7	2 34'	+ 8'
9	3 —	+ 14
11	2 30	+ 14
13	2 52	+ 24
15	3 15	+ 1
17	3 15	+ 3
18	3 7	+ 10
19	3 15	+ 3
20	3 7	+ 25
21	3 15	+ 4
22	3 15	+ 20
23	3 22	+ 12
24	3 8	+ 13
25	3 15	+ 7
28	3 15	+ 9
31	3 15	+ 10
April 1	3 15	+ 11
3	3 15	+ 12
10	3 30	- 3
11	3 15	+ 15
17	3 —	+ 5
May 29	2 37	- 7
June 7	2 52	+ 1

THESE mensurations may have a farther use, besides ascertaining the adjustment of the quadrant. If the eye could determine, with perfect accuracy, the contact of the limbs, the mean between the two measurements of the sun's diameter would be exactly equal to his apparent diameter, as determined by calculation, and given in the *Ephemeris*, but, from the imperfection of our organs, it happens that the limbs will sometimes appear to be in contact, when a little space remains between them, at others, when they overlap one another. In the former case, the diameter will appear greater, in the latter, less than the truth. But it is probable that, at nearly the same period of time, the state of the eye, or of the sensorium, by which we judge of this contact, is, in the same person, nearly the same. Of this I have made some trials, and found, that, when the sun's diameter, by my mensuration, differed from that in the *Ephemeris*, on repeating the measurements, at short intervals, the difference remained nearly the same. Therefore, if we observe the sun's altitude, a little time before or after measuring his diameter, the contact of the limbs will, probably, appear to take place in the same real situation of those limbs as when we measured the sun's diameter. But here, the effect of too open or too close observation will be reversed, the former making the altitude appear less, the latter, greater than the truth. These measurements then may be applied as corrections of the observed altitude. Thus, if the diameter of the sun has appeared too great, add the quantity of its excess to the angle observed, between the sun and his in *Mercury*, if it appeared too small, subtract the defect, to give the true angle. Thus, *March* the 13th, the error of the sextant was $2^{\circ} 52'$ to be subtracted, but the measurement of the sun's diameter exceeds the truth by $24'$. Therefore, this quantity is to be added to the observed angle, the observation being, probably, so much too open.

THE angle between the sun and his image in quicksilver, that day at noon, was	-	-	-	$123^{\circ} 33' 45''$
Error Sextant	-	$2' 52'$		
Do Observation +	$0 24$			
	— Diff	—	2 28	
	2) 123	31	17	
	61	45	38 5	
Diff. refr. and parallax			26 5	
	61	45	12	
Sun's Semidiameter	+ —		16 7	
	62	1	19	
Sun's Declin. South	+ —		2 36 23	
	64	37	42	
Co-Latitude				
	25	22	18	
Latitude of <i>Burwa Sagur</i>				

which is $13''$ less than in the following list, where this error was not allowed for

THE secondary, or horizontal adjustment, made by a small screw at the fore-part of the little speculum, was, from time to time, carefully attended to.

THE altitudes were taken by means of the image in quicksilver, which, if the sun was the object, was defended from the wind by a covering of thin

thin gauze, as recommended by Mr. BURROW in the first volume of the *Asiatic Researches*. When the altitude of a star was to be taken, this method did not answer, as it rendered the image too obscure. A thick cloth was therefore properly disposed to windward of the mercury.

The small telescope belonging to the sextant was used in all the observations.

As the instrument is only graduated to 125 degrees, I could not take altitudes exceeding 62 degrees. While the sun's meridian altitude could be observed, I have preferred it for the latitude, but, as this was soon about to be impracticable, I began, on the 29th of *February*, to compare the latitudes by meridian altitude, with those obtained from two altitudes and the elapsed time, by the rule in the requisite tables, in order to judge how far the latter might be depended on. The result of the comparison, which appears in the observations from that time to the 15th of *March*, determined me to trust to those double altitudes, while they could be taken within the prescribed limits, at the same time, comparing them occasionally with observations by a fixed star. From the first of *April*, I was obliged to trust entirely to the stars, and, to make the observations by them as accurate as possible, I have, when circumstances would allow, taken the meridian altitude of one to the north, and another to the south of the zenith. The telescope is an achromatic, made by DOLLAND, of twenty-eight inches focal distance. It inverts the object, and magnifies eighty times.

The watch is made by BROOKBANK, with horizontal balance-wheel, and continues to go while winding up. To determine, as accurately as possible, the time of an observation, I took equal altitudes of the sun, on the days

preceding and following it; and, having thus found the quantity gained or lost in twenty-four hours, applied to the time of observation a part proportional to its distance from the preceding or following noon. In this calculation, allowance was made for the difference of longitude (ascertained by geometrical survey) if the altitudes on the two days were taken at different places. Besides this, I have, when I had the opportunity, taken the altitudes of two fixed stars, one to the east, and another to the west of the meridian, within an hour before or after the observation, and calculated the time from them.

OBSERVATIONS OF LATITUDE

1791	Place	Sign or Star	Latitude.	Remarks.
May 24	Agra, monument of <i>Taj Mahl</i> ,	= ♋	27 10 00	doubtful
25	Ditto,	= ♋	27 10 11	distinct
Nov. 1	Lucknow, Mr. TAYLOR's House,	○	26 51 9	clear
24	Fussehghurh, Mr. PHILLIPS's Bungalow, near the centre of canonments,	○	27 21 5	cloudy.
25	Ditto,	○	27 21 54	clear.
26	Ditto,	○	27 22 46	ditto
28	Ditto,	○	27 21 44	ditto.
Dec 4	Gureeah village, bearing N & E 1 mile,	○	27 28 42	ditto.
9	Ditto,	○	27 29 11	ditto.
Jan 24	Dehhah, near the Bungalow,	○	27 27 5	
25	Nauabgunge, bg E dist 3 furl	○	27 26 12	

1792.	Place	Sun or Star	Latitude.	Remarks
Jan 26	Allygunge, Mosque, S 72 E	○	27 30 00	
	Doomree, Fort, S 22 E dist 2 f.	○	27 32 41	clear, windy
	Sukkot, N W 2½ f	○	27 25 15	sun had begun to fall.
	Giroul, Fort, S 10 W 1½ f.	○	27 11 13	
	Shekohabad, Agra-gate, S 55 E 7 f.	○	27 6 58	
Feb.	Feeronabab, Gate, S E 3 f	○	27 9 14	
	Eatunadpoor, Tank, S 67 W 2 f	○	27 14 7	
	Agra, monument of <i>Taj Mahl</i> , Ditto,	○	27 10 28	
	Camp at Gober Chokey, Ditto,	○	27 9 23	cloudy.
	Baad, bearing N 2 E dist 3 f.	○	27 3 23	clear.
	Munnah, S 30 W - 1	○	26 49 48	
	Dholpur, S 8 W - 3	○	26 41 41	
	Choola, Fort, N 44 W 3	○	26 37 25	a cloud came over the sun before he reached the meridian
	Noorabab, Garden, S 3 E 2	○	26 24 17	clear, windy.
	Gualior, Hill, S 3 E-S 45 E Ditto,	○ M A ○ 2 A	26 15 7 26 15 38	
March 2	Ditto,	○ M A	26 14 48	
	Antery, Fort, S 10 W dist 4 f	○ M A	26 4 20	
	Dibborah, Ditto,	○ M A ○ 2 A.	25 53 43 25 53 51	

ASTRONOMICAL OBSERVATIONS

1792.	Place.	Sun or Star	Latitude	Remarks
March 8	Duteah, S 32° E dist. 3½ miles, Ditto,	O M A	25 43 1	
9	Ditto, Rayah's House N W 3 f. Ditto,	O M A O 2 A	25 39 44 25 39 27	
11	Jhansi, S E angle fort, N 88 E 2½ f	O M. A	25 27 56	
	Ditto,	O 2 A.	25 28 1	
12	Ditto,	O M A	25 27 45	
13	Bure or Sugur, Castle, N 51 E 7½ f	O M A.	25 22 31	
	Ditto,	O 2 A.	25 21 46	
14	Ditto,	O M A	25 22 31	clear
15	Piripoor, N 80 W—N 18 E 1½ f Ditto,	O M A.	25 12 53	
16	Bunaury, N 2 W—N 42 W 1½ f	O 2 A.	25 2 6	
17	Belgaung, N 1 f.	O 2 A.	24 53 11	
18	Terry, N 55 E 3½	O 2 A.	24 43 30	
19	Murouny, Fort, S 75 E 2	O 2 A.	24 35 1	
20	Sinduaha, N 55 E 2	O 2 A.	24 31 34	
21	Narat, Temple of Hanumán, S 14 E 3½	O 2 A.	24 24 25	
	Ditto,	S U M	24 24 40	
22	Maltown, Fort, N 14 E dist 10 f	O 2 A.	24 17 30	
23	Khemlusah; N 48 E—N 57 W 2	S U. M	24 13 44	

1792	Place	Sun or Star	Latitude	Remarks
March 24	Rámpoor, N 5 E N—43 W	○ 2 A	24 6 18	
	Ditto,	" " "	24 7 25	
	Koorwey, Fort N 42—52 W 3	○ 2 A.	24 7 34	windy
	Kirwah, close to the village,	○ 2 A.	23 57 31	
	Basouda, N 35 W 5	○ 2 A	23 53 25	
	Ditto,	§ U M	23 50 46	{ cl. moderate, a dist. observ
	North Bank Gulcotta River,	○ 2 A	23 41 48	
	B'kelsah, S 56 E 4	○ 2 A	23 31 19	
	Ditto,	§ U M	23 32 1	clear, calm
	Ditto,	§ U M	23 31 39	
April 1	Ditto,	§ U M	23 32 5	
	Goodgaung, N 58 E 2	○ 2 A.	23 31 33	cl. moderate
	Ditto,	§ U. M	23 28 46	clear, calm
	Andry, N 67 E 2	§ U. M.	23 25 24	
	Ditto,	" "	23 24 29	
	Bopaul, Futtéhgurk fort, S 62— 68 W 1 mile,	U. M	23 15 46	
	Ditto,	" "	23 16 35	
	Ditto,	§ U	23 15 58	
	Pundah, N 42 E S 82 E 1 fur	§ U. M.	23 13 50	
	Ditto,	" "	23 13 45	
8	Sehone, S 85 E - 2	" "	23 12 00	
9	Furher, N 28—55 W 4	§ U. M.	23 14 5	
10	Shyawulpoor, N 18 W N 80 E 3	§ U. M.	23 24 54	

1792	Place	Sun or Star	Latitude
April 11	Bansrao's, N 64 E—S 65 E;	Hydra	23 25 54
12	Shahjehanpoor, S 83 W	Hydra	23 26 9
	Ditto,	S U. M	23 25 46
13	Turdia, N 70 W 3½	Hydra	23 20 2
	Ditto,	S U M	23 19 39
14	Tijpoor, close to the village	Hydra	23 14 47
	Ditto,	S U M	23 13 1
15	Oujen, near RANA KHAN's Garden,	Hydra	23 12 9
16	Do do	Hydra	23 12 13
	Do do.	S U M	23 10 58
18	Do do.	Hydra	23 12 13
19	Do do.	S U M	23 10 50
23	Do do.	η	23 11 28
May 29	Do house near Scindia's pal	η	23 11 8
June 14	Do. do.	η	23 10 45

**ECLIPSES OF JUPITER'S SATELLITES, observed with DOLLAND's
Achromatic Telescope, magnifying 80 times**

Apparent time	$\frac{h}{m}$	Im or Em	Place of Observation	Longit	Weather	Remarks.	
1791 D H	*			*	*		
May 11 11 58 56	1Em	Agra, Memuncchi <i>Taj Mah</i>	78 11 00	clear, windy			
18 7 44 24	2Em	ditto, -	78 58 00	clear, moderate			
26 10 22 10	2Em	ditto, -	78 22 00	do do			
June 19 10 25 26	1Em	ditto, -	78 27 15	do do			
24 10 19 41	3Em	ditto, -	77 20 30	do do			
Dec 27 17 17 42	5Em	Fatehpur Mr Phillips's Bungalow,	79 23 15	do. do.			
	51 16 13 28	2Im	ditto, -	79 1 50	do do		
1792							
Jan 17 17 6 13	1Im	ditto, -	79 32 45	cloudy, calm			
26 13 24 4	1Im	Allahabad, -	79 00 30	clear, calm		a distinct observation	
Feb 1 15 27 52	2Im	Patna, -	78 13 15	do do			
2 15 12 32	1Im	Entambapur, -	78 1 50	do do			
8 17 57 17	2Im	Agra Monument <i>Taj Mah</i>	77 53 00	thin, clouds, calm			
9 17 4 19	1Im	ditto, -	77 41 30	clear, calm			
16 13 27 1	1Im	ditto, -	77 47 30	a little hazy, calm			
Mar 15 10 53 48	3Im	Fatehpur, -	77 29 15	clear, calm			
	12 51 48	3Em	ditto, -	77 52 00	do do		
21 10 7 5	1Im	Narm, -	78 2 00	do do			
22 9 23 58	2Im	Malwa, -	77 56 15	do do			
28 12 2 4	1Im	N. Bink, Golkot, R. -	77 44 15	do do			
29 11 57 13	2Im	Bidhni, -	77 22 45	do do			
Ap 5 14 51 52	2Im	Bijar, -	77 9 45	do. do			
6 8 26 6	1Im	ditto, -	77 24 30	do do			
19 10 17 23	1Im	Purana, -	76 10 15	do do			
20 14 22 18	1Em	Agra near KANA KHAN's Garden,	76 19 00	clear, windy			
	22 8 48 49	1Em	ditto, -	75 45 30	clear, moderate		
23 11 27 53	1Em	ditto, -	75 29 00	do do			
29 10 44 42	1Em	ditto, -	75 48 00	do do			

N.B. The immersion she happened some minutes earlier than it ought, agreeably to the longitude commonly assigned to Agra.

a distinct observation

Takes somewhat unsteady.
Day beginning to break.

a distinct observation

a distinct observation
Plat at the inst of immersion somewhat obscure
Planet too near the moon
Moon very, thin haze near
the horizon
Satellite immersed close to
Jupiter's body

Apparent time	Sun or Star or Moon	Place of observation	Longit.	Weather	Remarks
Apr 30 11 6 21	1 Em	1 st Aug near RABA K's Gar	73 46 45	clear, moderate,	
May 6 12 40 21	1 Em	ditto, -	75 51 15	do do	
13 14 56 11	1 Em	ditto, -	76 7 45	do do	
15 9 3 22	1 Em	ditto, -	73 46 00	do do	Time from obs of Regulus
9 2 28	1 Em	ditto, -	73 52 30	do do	— Time from eq alt. of ☽
29 13 52 41	1 Em	Ougem House near Sc Indah's	26 00 35	hazy,	on 14th & 16th
Jun 7 9 14 21	1 Em	ditto, -	73 55 00	clear moderate,	Satell. emerg. very dim
14 11 7 49	1 Em	ditto, -	72 48 0	do do	Observe very disunct
					Ditto

A. A. Not having the opportunity of comparing these observations with contemporary ones, taken at *Gorewak*, or at places the longitudes of which from that observatory are ascertained, I have considered the times of the Eclipse given to be as accurate, and thence deduced the longitude from *Gorewak*.

LATITUDES OBSERVED

1792	Place.	Sun or Star	Latitude.	Remarks.
Oct 7	Ougem, Camp at SUAH DAWIL's Dungali,	O M A	23 12 4	clear, calm.
8	Dutto ditto -	ditto	23 13 45	
1793	Do Camp near RANA KHAN's ditto. Garden,		23 11 30	
Feb 13	Ditto, Camp at Unk-Psi,	* Hydræ	23 14 2	
14	Gutterah, - -	* Hydræ	23 23 55	
15	Tenaurah, - -	ditto	23 36 10	
16	Ager, - -	ditto	23 43 48	
17	Soosner (N 10 68 W dist 2 fur) Sinus.	* Hydræ	23 56 47	
18	Perawa - -	Sinur	23 57 56	med. 23 57 21
		* Hydræ	24 9 18	med 24 9 14

1792	Places	Sun or Star	Latitude	Remarks
March 19	Soonee (N 18 W dist 3. 58 fur)	Sunna.	24 22 11	
21	Jalmees (from S to S 35 W, dist 2. 33 fur)	* Hydæ	24 36 4	
22	Mucundra,	-	24 49 27	
23	Puchpahar (N 10 E dist 4. 5 f)	β U M	24 59 39	
24	Anandpoor,	-	25 6 40	med 25° 7' 5"
		-	25 7 31	.
25	Kotah (Camp near Bagh-Durwaza)	β U M	25 11 41	
28	Gawruch (S 77 E dist 3 f)	ditto	25 16 56	
29	Tekkegee (S 10—60 W dist 1 f)	β U M	25 20 53	
30	Boondes (Rajah's Mahil N 42 W)	β U M.	25 26 38	
31	Duplana (from S to S 80 E dist 1 furlong)	ditto	25 35 45	
April 1	Deogâree (S W)	ditto.	25 40 00	
2	Bahmen-gaung (E to S 15 E dist 1 furlong)	ditto	25 45 8	cloudy, uncert
3	Omara (S to S 63 E dist 7 f)	ditto	25 53 8	ditto, ditto
4	Ditto,	ditto	25 54 53	clear
6	Ditto,	ditto	25 55 15	clear, moderate
8	Burwârak (S 22 E to N 47 E dist extremes, 2 f)	ditto	26 3 31	do. do
9	Bhugwâr-gurk (N 30—85 W dist 3 f)	ditto	26 9 16	do. do.
10	Kheernee (S 30—82 E dist 1 f)	ditto	26 16 9	do. do

ASTRONOMICAL OBSERVATIONS

1792	Places	Star or Star	Latitude	Remarks
April 11	Mularma (S 57—80 W dist 3 2 f)	ditto	26 19 9	ditto, windy.
12	Amergurh (S 20 E dist 2 f)	ditto.	26 27 9	do. moderate.
13	Khoosk-hal-gurh (N 55—65 E dist. 4 f) Ditto,	Hydræ	26 28 9	ditto, do
14	Peelaudoh, (N 60—80 E dist 3 f) Ditto,	Hydræ.	26 35 54	do do
		8 U M	26 38 34	
		8 U M	26 36 39	
15	Hindoun (N 12 W to N 80 E distant nearest 1 f) Ditto,	Hydræ	26 43 24	clear, moderate
		8 U. M.	26 43 39	
16	Guront (S 48 W to W distant 2, 6 f) Ditto,	8 U M	26 49 9	do do
		8 ≈	26 48 39	
17	Buna (S 32 W to S 48 E dis- tant 1 f) Ditto,	Hydræ	26 55 40	do do
		8 U M	26 55 9	do windy
18	Rudeawul, (N 5—50 W dist. 2 f)	Hydræ	26 58 25	do. mode
19	Kamus (S 69 E to N 23 E dist 3 f) Ditto,	ditto	27 2 25	do do
		8 U M	27 1 55	
20	Futtehpoor (Camp within Chut- nunpooree Durazza, Ditto,	Hydræ	27 5 55	do do
		8 U M.	27 5 32	

ECLIPSES OF JUPITER'S SATELLITES

Apparent time	Min Sec Err	Im or Em	Place of Observation	Longit	Weather	Remarks
1793						
D H M S						
Mar 24 12 48 26	1	Im	Amritsar,	-	73 25 30	clear, moderate
30 13 16 29	2	Im	Bawali,	-	75 6 15	do do
31 14 43 33	1	Im	Dabholi,	-	75 13 45	do do
Apr 6 10 55 26	3	Em	Oudh,	-	76 25 45	do do
						The satellite had emerged sometime before I perceived it
— 13 54 6	21m.		Ditto,	-	75 41 45	do do
						By observations of Procyon and Arcturus, at $\frac{1}{2}$ past 9 P.M. watch slow $10' 56''$, and by thus the time is adjusted. But, on the 7th at $7\frac{1}{2}$ A.M. by the Sun, watch slow, only $8' 4''$, being $2' 51''$ gained in 10 hours. If we allow a proportionable gain to the time of immersion, — $1' 49''$ the time was $15^{\circ} 59' 17''$, and Longitude $75^{\circ} 14' 30''$
9 11 11 26	1	Im	Bingwan gurk,	-	76 9 30	do do
13 13 1 8 31	Im		Khankhal gurk,	-	75 57 30	do do
— 14 54 58 do Em	Ditto,	-	76 8 30	do do	Med 76 52	
16 13 10 24	1	Im	Serwa,	-	76 31 30	do, do
May 9 13 27 43	1	Im	Agra, Roohi Taj Mahal,	77 38 45	do do	

1793 Feb. 25th, at Oujem, Moon eclipsed

At 3 P.M. watch by the Sun	-	$10' 58''$ slow	med. $10' 30''$
At $12\frac{1}{2}$ P.M. by Procyon	-	$9' 59'$ do	
At $1\frac{1}{4}$ by Lyra	-	$10' 32'$ do	
By watch $14^{\circ} 14' -$			
	$+ 10' 30'$		

Apparent time, $14^{\circ} 24' 30''$ a slight obscurity began on the Moon's N. E. limb.

H	"
14	18
+	10 30

14 28 30 Dark shadow distinctly seen to enter.

17	00	00
+	10 30	

17 10 30 Eclipse ended—Limb clear.

If we reckon the beginning of the eclipse from the first perceptible obscurity, it is - - - - - 14 24 30

Then beginning by *Ephemeris* - - - - - 9 23 45

Difference of Longitude in time 5 00 45 $75^{\circ} 11' 15'$

But, reckoning from the entrance of the dark shadow, the difference is : 5 4 45 76 11 15

The end, by observation - - - - - 17 10 30

By *Ephemeris* - - - - - 12 6 30

5 4 00 76 00 00

Beginning of obscurity - - - - - 14 24 30

End - - - - - 71 10 30

15 47 30

Middle - - - - - 10 45 15

5 2 15 75 33 45
Duration

Duration observed	-	2 46 00
by <i>Ephemeris</i>	-	2 42 45
Excess of observation	=	00 3 15

As the state of the limbs at the times marked as the beginning of obscurity and end of the eclipse was similar, if we add half this difference ($1' 37''$) to the first of these times, and subtract it from the last, we shall have the beginning $14^{\circ} 26' 7''$

End $17^{\circ} 8' 53''$

Either of which will give the longitude $75^{\circ} 35' 40''$

REMARK BY THE PRESIDENT

The observations with which Mr HUNTER has favoured us, will be a valuable acquisition to all Indian geographers and antiquaries, for since *Ujjayin*, or *Ujjain*, is in the first meridian of the Hindus, its longitude ascertains the position of *Lancá* on the equator, and fixes the longitude, at least according to the Hindu astronomers, of *Curuśik्षitṛa*, *Vatsa*, the Pool *Sammitī*, *Cārahi*, and other places, which are frequently celebrated in Sanscrit books of the highest antiquity. Hence also we shall possibly ascertain the seven *dvipas*, which, on the authority of *PATANJALI* and of the *Veda* itself, we may pronounce to be neither the *seven planets* nor the *seven climates*, but great *peninsulas* of this earth, or large tracts of land with water on both sides of them. For example, in a preface to the *Sárya Siddhānta*, the peninsula, called *Salmala*, is declared to be 422 *Yojanas* to the east of *Lancá*, now a true *Yojana* is equal to 4½ geometrical miles, and the longitude of *Salmala* will thus bring us to the Gulph of *Siam*, or to the eastern Indian peninsula

peninsula beyond Malacca. There is a passage in one of the *Purána*s, which confirms this argument, where king SRAVAMA is described "on the *White Mountain* in the extensive region of Sámnaladwipa, meditating on the traces " of the divine foot, at a place called *the station of TRIVICRAMA*" Now we are assured by credible travellers, that the Siamese boast of a rock in their country, on which a footprint, as they say, of VISHNU is clearly discernible

X.

QUESTIONS AND REMARKS ON THE ASTRONOMY OF THE HINDUS.

BY JOHN PLAYFAIR, A M
PROFESSOR OF MATHEMATICS, AT EDINBURGH

1st of October, 1792.

PRESUMING on the invitation given with so much liberality in the
Advertisement prefixed to the second volume of the *Asiatic Researches*,
I have ventured to submit the following queries and observations to the Pres-
ident and other Members of the learned Society in Bengal.

I.

*Are any Books to be found among the Hindus, which treat professedly
of Geometry?*

I AM led to propose this question, by having observed, not only that the whole of the *Indian Astronomy* is a system constructed with great geometrical skill, but that the trigonometrical rules, given in the translation from the *Surya Siddhanta*, with which Mr. DAVIS has obliged the world, point out some very curious theorems, which must have been known to the author of that ancient book. The rule, for instance, by which the trigonometrical canon of the *Hindu* astronomers is constructed *, involves in it the following theorem “If there be three arches of a circle in arithmetical progression, the sum of the sines of the two extreme arches is to twice the sine of the

* *Asiatic Researches*, 245

“ middle

" middle arch, as the cosine of the common difference of the arches to the radius of the circle. Now this theorem, though not difficult to be demonstrated, is yet so far from obvious, that it seems not known to the mathematicians of Europe till the beginning of the last century, when it was discovered by VIETA. It has ever since been used for the construction of trigonometrical tables, as it affords a method of calculating the sines and arches much easier than that which depends on successive extractions of the square root. To find that this theorem was known to the *Brahmans* many ages ago, is therefore extremely curious, and the more so, because there is some reason to think that the commentator on the *Siddhanta*, quoted and translated by Mr. DAVIS †, did not understand the principle of this rule, since the method which he lays down is entirely different, much less profound in theory, and much more difficult in practice. If this be true, it indicates a retrograde order in the progress of eastern science, which must have had its origin in a very remote age.

II

Are any Books of Hindu Arithmetic to be procured?

It should seem, that if such books exist, they must contain much curious information, with many abridgments in the labour of calculating, and the like, all which may be reasonably expected from them, since an arithmetical notation, so perfect as that of India, has existed in that country much longer than in any other, but that which most of all seems to deserve the attention of the learned, is, the discovery said to be made of something like *Algebra* among the *Hindus*, such as the expression of number in general by

† P. 246, 247

certain symbols, and the idea of negative quantities. These certainly cannot be too carefully enquired into, and will, it is hoped, be considered by the Society at *Calcutta* as a part of that rich mine from which they have already extracted so many valuable materials. The problem mentioned by Mr *Barrow** proves, that the *Hindus* have turned their attention to certain arithmetical investigations, of which there is no trace in the writings of the *Greek* mathematicians.

III

Must not a complete translation of the Sūrya Siddhānta be considered as the grand desideratum with respect to Indian Astronomy?

SIR W. JOVLS gives us reason, I think, to hope that this will be executed by Mr DAVIS, and the specimen which that gentleman has exhibited, leaves as little reason to doubt of his abilities to translate the work accurately, as of the great value of the original. I have therefore only to express a wish, that if there be any diagrams in the *Surya Siddhānta*, they may be carefully preserved.

IV

Would not a Catalogue Raisonné, containing an enumeration, and a short account of the Sanscrit books on Indian Astronomy, be a work highly interesting and useful?

* *Astr. Res.* 495

V.

Might not an actual examination of the heavens, in company with a Hindu Astronomer, to ascertain all the stars and constellations, for which there are names in Sanscrit, prove a most valuable addition to our knowledge of Indian Astronomy?

Let me here take the liberty of reminding the President of his promise to make such an examination, by which the mistakes concerning the *Indian Zodiac*, some of which he has already pointed out, may be decisively corrected.

VI

May it not be of consequence to procure descriptions of the principal astronomical buildings and instruments of which any remains are still to be found, and which are certainly known to be of Hindu origin?

UNDER this head I would comprehend not only such works as the *Observatory at Benares*, which is well described by SIR ROBERT BARKER, but also such instruments as the *Astrolabe*, mentioned by MR BURROW in the Appendix to the second volume of the *Asiatic Researches*, and engravings of such instruments will be necessary to accompany the descriptions.

THOUGH, in the preceding questions, there may be nothing that has escaped the attention of the Society in *Bengal*, yet they will, perhaps, be forgiven to one who feels himself deeply interested in the subject to which they relate, and who would not lose even the feeblest ray of a light, which, without the exertions of the *Asiatic Society*, must perish for ever.

REMARK BY THE PRESIDENT

We shall concur, I am persuaded, in giving our public thanks to Professor PLAYFAIR for the Questions which he has proposed, and in expressing our wish, that his example may be followed by the learned in *Europe*. Concise answers to his queries will be given in my next annual discourse, the subject of which will comprise a general account of *Indian* astronomy and mathematics. I would long ago have accomplished my *design* (which I never meant as a *promise* to be performed to all events) of examining the heavens in company with an intelligent *Hindu* astronomer, if such a companion could have been found in this province but, though I offered ample stipends to any *Hindu* astronomer who could name, in *Sanskrit*, all the constellations which I should point out, and to any *Hindu* physician who could bring me all the plants named in *Sanskrit* books, I was assured by the *Brahmen* whom I had commissioned to search for such instructors, that no *Pandit* in *Bengal* even pretended to possess the knowledge which I required. Lieut. WILFORD, however, has lately favoured me with a *Sanskrit* work, procured by him at *Benares*, containing the names, figures, and positions of all the asterisms known to ancient or modern *Hindus*, not only in the Zodiac, but in both hemispheres, and almost from pole to pole. That work I translated with attention, and immediately consigned it to Mr. DAVIS, who, of all men living, is the best qualified to exhibit a copious and accurate History of *Indian* Astronomy.

XI.

DISCOURSE THE ELEVENTH ON THE PHILOSOPHY OF THE ASIATICS

DELIVERED 20th OF FEBRUARY, 1794

BY THE PRESIDENT

HAD it been of any importance, Gentlemen, to arrange these Anniversary Dissertations according to the ordinary progress of the human mind, in the gradual expansion of its three most considerable powers, *memory*, *imagination*, and *reason*, I should certainly have presented you with an essay on the *liberal arts* of the five *Asiatic* nations, before I produced my remarks on their *abstract sciences*, because, from my own observation at least, it seems evident, that *fancy*, or the faculty of combining our ideas agreeably, by various modes of imitation and substitution, is in general earlier exercised, and sooner attains maturity than the power of separating and comparing those ideas by the laborious exertions of intellect, and hence, I believe, it has happened, that all nations in the world had poets before they had mere philosophers but, as M D'ALEMBERT has deliberately placed science before art, as the question of precedence is, on this occasion, of no moment whatever, and as many new facts on the subject of *Asiatic* Philosophy are fresh in my remembrance, I propose to address you now on the sciences of *Asia*, reserving for our next annual meeting a disquisition concerning those fine arts which have immemorially been cultivated, with different success, and in very different modes, within the circle of our common inquiries.

By science I mean an assemblage of transcendental propositions discoverable by human reason, and reducible to first principles, axioms, or maxims, from which they may all be derived in a regular succession, and there are consequently as many sciences as there are general objects of our intellectual powers. When man first exerts those powers, his objects are *himself* and the rest of *nature*. Himself he perceives to be composed of *body* and *mind*, and in his *individual* capacity he reasons on the *uses* of his animal frame and of its parts, both exterior and internal, on the *disorders* impeding the regular functions of those parts, and on the most probable methods of preventing those disorders, or of removing them, he soon feels the close connexion between his corporeal and mental faculties, and when his *mind* is reflected on itself, i.e. discourses on its *essence* and its *operations* in his *social* character, he analyses his various *duties* and *rights*, both private and public, and in the course which the fullest discharge of those duties always admits, his intellect is directed to *nature* at large, to the *substance* of natural bodies, to their several *properties*, and to their quantity both separate and united, finite and infinite, from all which objects he deduces notions, either purely abstract and universal, or mixed with undoubted facts, he argues from phenomena to theorems, from those theorems to other phenomena, from causes to effects, from effects to causes, and thus arrives at the demonstration of a *first intelligent cause* whence his collected wisdom, being arranged in the form of science, chiefly consists of *physiology* and *medicine*, *metaphysics* and *logic*, *ethics* and *jurisprudence*, *natural philosophy* and *mathematics*, from which the *religion of nature* (since revealed religion must be referred to *history*, as alone affording evidence of it) has in all ages and in all nations been the sublime and consoling result. Without professing to have given a logical definition of science, or to have exhibited a perfect enumeration of its objects, I shall confine myself to those *five divisions* of *Asiatic Philosophy*, enlarging for the

most

most part on the progress which the *Hindus* have made in them, and occasionally introducing the sciences of the *Arabs* and *Persians*, the *Tartars* and the *Chinse* but, how extensive soever may be the range which I have chosen, I shall beware of exhausting your patience with tedious discussions, and of exceeding those limits which the occasion of our present meeting has necessarily prescribed.

I THE first article affords little scope, since I have no evidence that, in any language of *Asia*, there exists one original treatise on medicine considered as a science physic, indeed, appears in these regions to have been from time immemorial, as we see it practised at this day by *Hindus* and *Muselmans*, a mere empirical history of diseases and remedies, useful I admit it, in a high degree, and worthy of attentive examination, but wholly foreign to the subject before us. Though the *Arabs*, however, have chiefly followed the *Greeks* in this branch of knowledge, and have themselves been implicitly followed by other *Mohammedan* writers, yet (not to mention the *Chinese*, of whose medical works I can at present say nothing with confidence) we still have access to a number of *Sanskrit* books on the old *Indian* practice of physic, from which, if the *Hindus* had a theoretical system, we might easily collect it. The *Ayurveda*, supposed to be the work of a celestial physician, is almost entirely lost, unfortunately, perhaps, for the curious *European*, but happily for the patient *Hindu*, since a revealed science precludes improvement from experience, to which that of medicine ought, above all others, to be left perpetually open but I have myself met with curious fragments of that primeval work, and, in the *Veda* itself, I found with astonishment an entire *Upamshaad* on the internal parts of the human body, with an enumeration of nerves, veins, and arteries, a description of the heart, spleen, and liver, and various disquisitions on the formation and growth of the foetus. From the

the laws, indeed, of *Muni*, which have lately appeared in our own language, we may perceive that the ancient *Hindus* were fond of reasoning, in their way, on the mysteries of animal generation, and on the comparative influence of the sexes in the production of perfect offspring, and we may collect from the authorities adduced in the learned Essay on *Egypt* and the *Nile*, that their physiological disputes led to violent schisms in religion, and even to bloody wars. On the whole, we cannot expect to acquire many valuable truths from an examination of eastern books on the science of medicine, but examine them we must, if we wish to complete the history of universal philosophy, and to supply the scholars of *Europe* with authentic materials for an account of the opinions anciently formed on this head by the philosophers of *Aia*. To know indeed, with certainty, that so much and no more can be known on any branch of science, would in itself be very important and useful knowledge, if it had no other effect than to check the boundless curiosities of mankind, and to fix them in the straight path of attainable science, especially of such as relates to their duties, and may conduce to their happiness.

II. WE have an ample field in the next division, and a field almost wholly new, since the metaphysics and logic of the *Brahmins*, comprised in their six philosophical *Sastras*, and explained by numerous glosses, or commentaries, have never yet been accessible to *Europeans*, and, by the help of the *Sanskrit* language, we now may read the works of the *Saugatas*, *Baudhilas*, *Ashutoshas*, *Jatismas*, and other heterodox philosophers, whence we may gather the metaphysical tenets prevalent in *China* and *Japan*, in the eastern peninsula of *India*, and in many considerable nations of *Tartary*. There are also some valuable tracts on these branches of science in *Persian* and *Arabic*, partly copied from the *Greeks*, and partly comprising the doctrines of the *Sufis*, which

which anciently prevailed, and still prevail in a great measure over this oriental world, and which the *Grecs* themselves condescended to borrow from easterne sages

THE little treatise in four chapters, ascribed to *Syrsa*, is the only philosophical *Sutra*, the original text of which I have had leisure to peruse with a *Brahmen* of the *Vaidika* school - it is extremely obscure, and though composed in sentences elegantly modulated, has more resemblance to a table of contents, or an accurate summary, than to a regular systematical tract, but all its obscurity has been cleared by the labour of the very judicious and most learned *SANCARA*, whose commentary on the *Vedanta* which I read also with great attention, not only elucidates every word of the text, but exhibits a perspicuous account of all other *Indian* schools, from that of *CAPILA* to those of the more modern heretics - It is not possible, indeed, to speak with too much applause of so excellent a work, and I am confident in asserting, that, until an accurate translation of it shall appear in some *European* language, the general history of philosophy must remain incomplete, for I perfectly agree with those who are of opinion, that one correct version of any celebrated *Hindu* book would be of greater value than all the dissertations or essays that could be composed on the same subject - You will not, however, expect that, in such a discourse as I am now delivering, I should expatiate on the diversity of *Indian* philosophical schools, on the several founders of them, on the doctrines which they respectively taught, or on their many disciples, who dissented from their instructors in some particular points - On the present occasion, it will be sufficient to say, that the oldest head of a sect, whose entire work is preserved, was (according to some authors) *CAPILA*, not the divine personage, a reputed grandson of *BRAHMA*, to whom *CRISHNA* compares himself in the *Gita*, but a sage of his name, who invented

the *Sa'chya*, or *Nyāya* Philosophy, which CRISHNA himself appears to impugn in his conversation with ARJUNA, and which, as far as I can collect it from a few original texts, resembled in part the metaphysics of PYTHAGORAS, and in part the theology of ZENO. His doctrines were enforced and illustrated, with some additions, by the venerable PATANJALI, who has also left us a fine comment on the grammatical rules of PA'NINI, which are more obscure, without a gloss, than the darkest oracle, and here, by the way, let me add, that I refer to metaphysics the curious and important science of *universal grammar*, on which many subtle disquisitions may be found interspersed in the particular grammars of the ancient *Hindus*, and in those of the more modern *Arabs*. The next founder, I believe, of a philosophical school was GOTAMA, if, indeed, he was not the most ancient of all, for his wife ANA'LĀDA was, according to Indian legends, restored to a human shape by the great RAMA, and a sage of his name, whom we have no reason to suppose a different personage, is frequently mentioned in the *Juda* itself to his rational doctrines the e of GOTAMA were in general conformable, and the philosophy of them both is usually called *Nyāya*, or *logical* a title aptly bestowed, for it seems to be a system of metaphysics and logic better accommodated than any other anciently known in India, to the natural reason and common sense of mankind, admitting the actual existence of material substance in the popular acceptation of the word *matter*, and comprising not only a body of sublime dialectics, but an artificial method of reasoning, with distinct names for the three parts of a proposition, and even for those of a regular syllogism. Here I cannot refrain from introducing a singular tradition which prevailed, according to the well-informed author of the *Dabistan*, in the *Persia* and in several *Persian* provinces, that, "among other Indian curiosities, which CALLIS THEREIS transmitted to his uncle, was a technical system of logic, which the *Brahmins* had communicated to the inquisitive Greek," and which

which the *Mohammedan* writer supposes to have been the ground work of the famous *Aristotelean* method. If this be true, it is one of the most interesting facts that I have met with in *Asia* and if it be false, it is very extraordinary that such a story should have been fabricated either by the candid *Mohsani Fani*, or by the simple *Parsis* and *Pandits*, with whom he had conversed, but, not having had leisure to study the *Nyaya Sistra*, I can only assure you, that I have frequently seen perfect syllogisms in the philosophical writings of the *Brahmins*, and have often heard them used in their verbal controversies. Whatever might have been the merit or age of *Gautama*, yet the most celebrated *Indian* school is that, with which I began, founded by *Vyasa*, and supported in most respects by his pupil *Jaimini*, whose dissent on a few points is mentioned by his master with respectful moderation. Their several systems are frequently distinguished by the names of the first and second *Mimansâ*, a word which, like *Nyaya*, denotes the operations and conclusions of reason, but the tract of *Vyasa* has in general the appellation of *Vedânta*, or the scope and end of the *Veda*, on the texts of which, as they were understood by the philosopher who collected them, his doctrines are principally grounded. The fundamental tenet of the *Vedânta* school, to which in a more modern age the incomparable *Sankara* was a firm and illustrious adherent, consisted not in denying the existence of matter, that is, of solidity, impenetrability, and extended figure (to deny which would be lunacy) but, in correcting the popular notion of it, and in contending that it has no essence independent of mental perception, that existence and perceptibility are convertible terms, that external appearances and sensations are illusory, and would vanish into nothing, if the divine energy, which alone sustains them, were suspended but for a moment an opinion, which *EPICHARMUS* and *PLATO* seem to have adopted, and which has been maintained in the present century with great ele-

gance, but with little public applause, partly because it has been misunderstood, and partly because it has been misapplied by the false remonstrants of some unpopular writers, who are said to have disbelieved in the moral attributes of God, whose omnipresence, wisdom, and goodness, are the basis of the Indian philosophy. I have not sufficient evidence on the subject to profess a belief in the doctrine of the *Vidénta*, which human reason alone could, perhaps, neither fully demonstrate, nor fully disprove, but it is manifest, that nothing can be farther removed from impiety than a system wholly built on the purest devotion, and the inexpressible difficulty which any man, who shall make the attempt, will assuredly find in giving a satisfactory definition of *material substance*, must induce us to deliberate with coolness, before we censure the learned and pious restorer of the ancient *Veda*, though we cannot but admit, that, if the common opinions of mankind be the criterion of philosophical truth, we must adhere to the system of GO TAMA, which the *Brahmins* of this province almost universally follow.

If the metaphysics of the *Vedantists* be wild and erroneous, the pupils of BUDDHA have run, it is asserted, into an error diametrically opposite, for they are charged with denying the existence of pure spirit, and with believing nothing absolutely and really to exist but *material substance* a heavy accusation which ought only to have been made on positive and incontestable proof, especially by the orthodox *Brahmins*, who, as BUDDHA dissented from their ancestors in regard to *bloody sacrifices*, which the *Veda* certainly prescribes, may not unjustly be suspected of low and interested malignity. Though I cannot credit the charge, yet I am unable to prove it entirely false, having only read a few pages of a *Saṅgaṭa* book, which Captain KIRKPATRICK had lately the kindness to give me, but it begins like other Hindu books, with the word *Om*, which we know to be a symbol of the divine attributes,

tributes, then follows, indeed, a mysterious hymn to the Goddess of Nature, by the name of *Aryā*, but with several other titles, which the *Brahmenses* themselves continually bestow on their *Devi*. Now the *Brahmenses*, who have no idea that any such personage exists as *Devi*, or the *Goddess*, and only mean to express allegorically the *power* of God, exerted in creating, preserving, and renovating this universe, we cannot with justice infer, that the dissenters admit no Deity but *visible nature*. The *Pandit* who now attends me, and who told Mr. WILKINS that the *Sangatas* were atheists, would not have attempted to resist the decisive evidence of the contrary, which appears in the very instrument on which he was consulted, if his understanding had not been blinded by the intolerant zeal of a mercenary priesthood. A literal version of the book just mentioned (if any studious man had learning and industry equal to the task) would be an inestimable treasure to the compiler of such a history as that of the laborious BRUCKE. But let us proceed to the *moral*s and *jurisprudence* of the *Asiatics*, on which I could expatiate, if the occasion admitted a full discussion of the subject, with correctness and confidence.

III That both ethics and abstract law might be reduced to the *method of science*, cannot surely be doubted; - but, although such a method would be of infinite use in a system of universal, or even of national jurisprudence, yet the *principles* of morality are so few, so luminous, and so ready to present themselves on every occasion, that the practical utility of a scientific arrangement, in a treatise on ethics, may very justly be questioned. The moralists of the east have, in general, chosen to deliver their precepts in short sententious maxims, to illustrate them by sprightly comparisons, or to inculcate them in the very ancient form of agreeable apophyses. There are indeed, both in *Arabic* and *Persian*, philosophical tracts on ethics, written with

with sound ratiocination and elegant perspicuity; but in every part of this eastern world, from *Pekin* to *Damascus*, the popular teachers of moral wisdom have unmemorably been poets, and there would be no end of enumerating their works, which are still extant in the five principal languages of Asia. Our divine religion, the truth of which (if any history be true) is abundantly proved by historical evidence, has no need of such aids, as many are willing to give it, by asserting, that the wisest men of this world were ignorant of the two great maxims, that *we must act in respect of others, as we should wish them to act in respect of ourselves*; and that, *instead of returning evil for evil, we should confer benefits even on those who injure us*. But the first rule is implied in a speech of *Lysias*, and expressed in distinct phrases by *Thales* and *Pittacus*, and I have even seen it, word for word, in the original of *Confucius*, which I carefully compared with the *Latin* translation. It has been usual with zealous men to ridicule and abuse all those who dare on this point to quote the *Chinese* philosopher, but, instead of supporting their cause they would shake it, if it could be shaken, by their uncandid asperity, for they ought to remember, that one great end of revelation, as it is most expressly declared, was not to instruct the wise and few, but the many and unenlightened. If the conversion, therefore, of the *Pandits* and *Maulavis* in this country shall ever be attempted by Protestant missionaries, they must beware of asserting, while they teach the gospel of truth, what those *Pandits* and *Maulavis* would know to be false. The former would cite the beautiful *Arya* couplet, which was written at least three centuries before our era, and which pronounces the duty of a good man, even in the moment of his destruction, to consist *not only in forgiving, but even in a desire of benefitting, his destroyer, as the Sandal-tree, in the instant of its overthrow, sheds perfume on the axe which sells it*, and the latter would triumph in repeating the verse of *Sabs*, who represents a *return of good for good as a slight*

slight reciprocity; but says to the virtuous man, "*Confer benefits on him who has injured thee*," using an *Arabic* sentence, and a maxim apparently of the ancient *Arabs*. Nor would the *Muselmans* fail to recite four distichs of *Ha'firz*, who has illustrated that maxim with fanciful but elegant allusions

Learn from yon orient shell to love thy foe,
And store with pearls the hand that brings thee woe;
Free, like yon rock, from base vindictive pride,
Emblaze with gems the wrist that rends thy bower;
Mark, where yon tree rewards the stony show'r
With fruit nectareous, or the balmy flow'r;
All nature calls aloud, "*I shall man do less*
"Than heath the master, and the ruler blest?"

Now there is not a shadow of reason for believing that the poet of *Shiraz* had borrowed this doctrine from the *Christians*, but, as the cause of *Christianity* could never be promoted by falsehood or error, so it will never be obstructed by candour and veracity; for the lessons of *CONFUCIUS* and *CHANACYA*, of *SADI* and *HA'FIZ*, are unknown even at this day to millions of *Chinese* and *Hindus*, *Persians* and other *Mahomedans*, who toil for their daily support, nor, were they known ever so perfectly, woud they have a divine sanction with the multitude, so that, in order to enlighten the minds of the ignorant, and to enforce the obedience of the perverse, it is evident, *a priori*, that a revealed religion was necessary in the great system of Providence but my principal motive for introducing this topic, was to give you a specimen of that ancient oriental morality which is comprised in an infinite number of *Persian*, *Arabic*, and *Sanskrit* compositions.

NEARLY one half of *jurisprudence* is closely connected with ethics; but, since the learned of *Asia* consider most of their laws as positive and divine institutions, and not as the mere conclusions of human reason, and since I have prepared a mass of extremely curious materials which I reserve for an introduction to the digest of *Indian* laws, I proceed to the fourth division, which consists principally of science, transcendently so named, or *the knowledge of abstract quantities, of their limits, properties, and relations*, impressed on the understanding with the force of irresistible *demonstration*, which, as all other knowledge depends, at best, on our fallible senses, and in a great measure on still more fallible testimony, can only be found in pure mental abstractions, though for all the purposes of life our own senses, and even the credible testimony of others, give us in most cases the highest degree of certainty, physical and moral.

IV I HAVE already had occasion to touch on the *Indian* metaphysics of *natural bodies* according to the most celebrated of the *Asiatic* schools, from which the *Pythagoreans* are supposed to have borrowed many of their opinions, and, as we learn from *Cicero*, that the old sages of *Europe* had an idea of *centripetal force*, and a principle of *universal gravitation* (which they never indeed attempted to demonstrate) so I can venture to affirm, without meaning to pluck a leaf from the never fading laurels of our immortal *Newton*, that the whole of his theology, and part of his philosophy, may be found in the *Vedas*, and even in the works of the *Béfis*. That *most subtle spirit*, which he suspected to pervade natural bodies, and, lying concealed in them, to cause attraction and repulsion, the emission, reflection, and refraction of light, electricity, calefaction, sensation, and muscular motion, is described by the *Hindus* as a *fifth element*, endued with those very powers; and the *Vedas* abound with allusions to a force univer-

sally

sally attractive, which they chiefly ascribe to the Sun, that is called *Aditya*, or the *Astracter*: a name designed by the mythologists to retain the Child of the Goddess *Anaxi*; but the most wonderful passage on the theory of attraction, occurs in the charming allegorical poem of *Suri'si'm* and *Fera'ad*, or the *Divine Spirit* and a *human soul disinterestedly pure*. a work which, from the first verse to the last, is a blaze of religious and poetical fire. The whole passage appears to me so curious, that I make no apology for giving you a faithful translation of it. "There is a strong pro-
 "pensity which dances through every atom, and attracts the minutest par-
 "ticle to some peculiar object. Search this universe from its base to its
 "summu, from fire to air, from water to earth, from all below the Moon
 "to all above the celestial spheres, and thou wilt not find a corporeal de-
 "ficien't of that natural attractability, the very point of the first thread, in
 "this apparently tangled skein, is no other than such a principle of attrac-
 "tion, and all principles beside are void of a real basis - from such a pro-
 "pensity arises every motion perceived in heavenly, or in terrestrial bodies: -
 "it is a disposition to be attracted, which taught hard steel to rush from
 "its place and meet itself on the magnet - it is the same disposition which
 "impels the light straw to attach itself firmly on amber - it is this quality
 "which gives every substance in nature a tendency toward another, and so
 "inclination forcibly directed to a determinate point." These notions are
 vague, indeed, and unsatisfactory; but permit me to ask, whether the last
 paragraph of NEWTON's incomparable work goes much farther, and whether
 any subsequent experiments have thrown light on a subject so abstruse and
 obscure. That the sublime astronomy and exquisitely beautiful geometry
 with which that work is illustrated, should in any degree be approached by
 the Mathematicians of Asia, while, of all Europeans who'ever lived, ARKH-
 MENDZ alone was capable of stimulating them, would be a vain expectation, but

we must suspend our opinion of *Indian* astronomical knowledge till the *Sûrya Siddhânta* shall appear in our own language, and even then (to adopt a phrase of CICERO) our *greedy, and capacious* ears will by no means be satisfied; for, in order to complete an historical account of genuine *Hindoo* astronomy, we require verbal translations of at least three other *Sanscrit* books; of the treatise of PARASARA for the first age of *Indian* science, of that by VARA'RA, with the copious comment of his very learned son, for the middle age, and of those written by BHASCARA for times comparatively modern. The valuable and now accessible works of the last mentioned philosopher, contain also an *universal*, or *specious* arithmetic, with one chapter at least on geometry; nor would it, surely, be difficult to procure, through our several residents with the *Pishwas* and with SCINDRYA, the older books on algebra, which BHASCARA mentions, and on which MR. DAVIS would justly set a very high value, but the *Sanscrit* work, from which we might expect the most ample and important information, is entitled *Cakrîdleria, or a View of Geometrical Knowledge*, and was compiled in a very large volume by order of the illustrious JATASENHA, comprising all that remains on that science in the sacred language of India - it was inspected in the west by a *Pandit* now in the service of Lieutenant WILFORD, and might, I am persuaded, be purchased at *Jajaugar*, where Colonel POLK had permission from the *Râjâ* to buy the four *Vedas* themselves. Thus have I answered, to the best of my power, the three first questions obliquely transmitted to us by Professor PLATTAIR, - Whether the *Hindus* have books in *Sanscrit* expressly on geometry? Whether they have any such on arithmetic? and, Whether a translation of the *Sûrya Siddhânta* be not the great *desideratum* on the subject of *Indian* astronomy? To his three last questions, - Whether an accurate summary account of all the *Sanscrit* works on that subject? A delineation of the *Indian* celestial sphere, with correct remarks on it? and, A description of the astronomical instruments.

ments used by the ancient *Hindus*, would not severally be of great utility? we cannot but answer in the affirmative, provided that the utmost critical sagacity were applied in distinguishing such works, constellations, and instruments, as are clearly of *Indian* origin, from such as were introduced into this country by *Musselman* astronomers from *Tartary* and *Persia*, or in later days by mathematicians from *Europe*.

V. FROM all the properties of man and of nature, from all the various branches of science, from all the deductions of human reason, the general corollary, admitted by *Hindus*, *Arabs*, and *Tartars*, by *Persians*, and by *Chinese*, is the supremacy of an all-creating and all-preserving Spirit, infinitely wise, good, and powerful, but infinitely removed from the comprehension of his most exalted creatures; nor are there in any language (the ancient *Hebrew* always excepted) more pious and sublime addresses to the Being of beings, more splendid enumerations of his attributes, or more beautiful descriptions of his visible works, than in *Arabic*, *Persian*, and *Sanskrit*, especially in the *Koran*, the introductions of the poems of *SADI*, *NIZA'MI*, and *FIRDAUSI*, the four *Vedas* and many parts of the numerous *Purânes*—but supplication and praise would not satisfy the boundless imagination of the *Vedas*; and *Sefî* theologists, who, blending uncertain metaphysics with undoubted principles of religion, have presumed to reason confidently on the very nature and essence of the divine spirit, and asserted in a very remote age, what multitudes of *Hindus* and *Musselmans* assert at this hour, that all spirit is homogeneous; that the spirit of God is in kind the same with that of man, though differing from it infinitely in degree, and that, as material substance is mere illusion, there exists in this universe only one generic spiritual substance, the sole primary cause, efficient, substantial, and formal of all secondary causes and of all appearances whatever, but endued, in its highest degree, with a sublime

providential wisdom, and proceeding by ways incomprehensible to the agents which emanate from it: an opinion which GUTAMA never taught, and which we have no authority to believe, but which, as it is grounded on the doctrine of an immaterial Creator supremely wise, and a constant Preserver supremely benevolent, differs as widely from the pantheism of SPINOZA and TOLAND as the affirmation of a proposition differs from the negation of it, though the last named professor of that *misme philosophy* had the baseness to conceal his meaning under the very words of SAINT PAUL, which are cited by NEWTON for a purpose totally different, and has even used a phrase which occurs, indeed, in the *Veda*, but in a sense diametrically opposite to that which he would have given it. The passage to which I allude, is in a speech of VARUNA to his son, where he says, " That spirit, from which these created beings proceed, through which, having proceeded from it, they live; toward which they tend, and in which they are ultimately absorbed, that spirit study to know; that spirit is the Great One "

The subject of this discourse, Gentlemen, is inexhaustible: it has been my endeavour to say as much on it as possible in the fewest words, and, at the beginning of next year, I hope to close these general disquisitions with topics measureless in extent, but less abstruse than that which has this day been discussed; and better adapted to the gouty which seems to have prevailed in the learned banquets of the Greeks, and which ought surely to prevail in every symposiac assembly.

A DISCOURSE
DELIVERED AT
A MEETING OF THE ASIATIC SOCIETY,
ON THE 22d OF MAY, 1794.

BY SIR JOHN SHORE, BART PRESIDENT.

GENTLEMEN,

IF I had consulted my competency only, for the station which your choice has conferred upon me, I must, without hesitation, have declined the honour of being the President of this Society, and although I most cheerfully accept your invitation, with every inclination to assist, as far as my abilities extend, in promoting the laudable views of our association, I must still retain the consciousness of those disqualifications, which you have been pleased to overlook.

IT was lately our boast to possess a President, whose name, talents, and character, would have been honourable to any institution, it is now our misfortune to lament, that Sir WILLIAM JONKS exists but in the affections of his friends, and in the esteem, veneration, and regret of all.

I CANNOT,

I CANNOT, I flatter myself, offer a more grateful tribute to the Society, than by making his character the subject of my first address to you, and if in the delineation of it, fondness or affection for the man should appear blended with my reverence for his genius and abilities, in the sympathy of your feelings I shall find my apology.

To define, with accuracy, the variety, value, and extent of his literary attainments, requires more learning than I pretend to possess, and I am therefore to solicit your indulgence for an imperfect sketch, rather than expect your approbation for a complete description, of the talents and knowledge of your late and lamented President.

I shall begin with mentioning his wonderful capacity for the acquisition of languages, which has never been excelled. In *Greek* and *Roman* literature, his early proficiency was the subject of admiration and applause, and knowledge of whatever nature, once obtained by him, was ever afterwards progressive. The more elegant dialects of modern *Europe*, the *French*, the *Spanish*, and the *Italian*, he spoke and wrote with the greatest fluency and precision, and the *German* and *Portuguese* were familiar to him. At an early period of life his application to oriental literature commenced. He studied the *Hebrew* with ease and success; and many of the most learned *Asiatics* have the candour to avow, that his knowledge of *Arabic* and *Persian* was as accurate and extensive as their own, he was also conversant in the *Turkish* idiom, and the *Chinese* had even attracted his notice so far, as to induce him to learn the radical characters of that language, with a view perhaps to farther improvements. It was to be expected, after his arrival in *India*, that he would eagerly embrace the opportunity of making himself master of the *Shanscrit*, and the most enlightened professors of the doctrines of *BRAHMA*, confess,

with

with pride, delight, and surprise, that his knowledge of their sacred dialect was most critically correct and profound. The *Pandits*, who were in the habit of attending him, when I saw them after his death, at a public *Durbar*, could neither suppress their tears for his loss, nor find terms to express their admiration at the wonderful progress he had made in their sciences.

BEFORE the expiration of his twenty-second year, he had completed his Commentaries on the Poetry of the *Anatice*, although a considerable time afterwards elapsed before their publication; and this work, if no other monument of his labours existed, would at once furnish proofs of his consummate skill in the oriental dialects, of his proficiency in those of *Rome* and *Greece*, of taste and erudition far beyond his years, and of talents and application without example.

BUT the judgment of Sir WILLIAM JONES was too discerning to consider language in any other light than as the key of science, and he would have despised the reputation of a mere linguist. Knowledge and truth were the objects of all his studies, and his ambition was to be useful to mankind. With these views, he extended his researches to all languages, nations, and times.

SUCH were the motives that induced him to propose to the Government of this country, what he justly denominated a work of national utility and importance, the compilation of a copious Digest of *Hinde* and *Mahomedan* Law, from *Shanscrit* and *Arabic* originals, with an offer of his services to superintend the compilation, and with a promise to translate it. He had foreseen, previous to his departure from *Europe*, that without the aid of such a work, the wise and benevolent intentions of the legislature of *Great Britain*,

in having, to a certain extent, the sources of those provinces in possession of their own laws, could not be completely fulfilled ; and his experience, after a short residence in India, confirmed what his ingenuity anticipated, that without principles to refer to, in a language familiar to the judges of the courts, adjudications amongst the savires must too often be subject to an uncertain and erroneous exposition, or wilful misinterpretation of their laws.

To the superintendance of this work, which was immediately undertaken at his suggestion, he assiduously devoted those hours which he could spare from his professional duties. After tracing the plan of the digest, he prescribed its arrangement and mode of execution, and selected from the most learned Hindus and Mohammedans fit persons for the task of compiling it. Flattered by his attention, and encouraged by his applause, the *Pandits* prosecuted their labour with cheerful zeal, to a satisfactory conclusion. The *Mohammedans* have also nearly finished their portion of the work, but we must ever regret that the promised translation, as well as the intended preliminary dissertation, have been frustrated by that decree which so often intercepts the performance of human purposes.

DURING the course of this compilation, and as an auxiliary to it, he was led to study the works of Manu, reputed by the *Hindus* to be the oldest and holiest of legislators ; and finding them to comprise a system of religious and civil duties, and of law in all its branches, so comprehensive and minutely exact, that it might be considered as the *institutes* of Hindu law, he presented a translation of them to the Government of Bengal. During the same period, deeming no labour excessive or superfluous that tended, in any respect, to promote the welfare or happiness of mankind, he gave the public an English version of the *Arabic* text of the *SIRAJUTTAH*, or *Mohammedan Law of Inheritance*,

heritance, with a Commentary. He had already published in *England*, a translation of a Tract on the same subject, by another *Mohammedan* lawyer, containing, as his own words express, a lively and elegant epitome of the Law of Inheritance, according to ZAID

To these learned and important works, so far out of the road of amusement, nothing could have engaged his application, but that desire which he ever professed, of rendering his knowledge useful to his two nation, and beneficial to the inhabitants of these provinces

WITHOUT attending to the chronological order of their publication, I shall briefly recapitulate his other performances in *Asianic Literature*, as far as my knowledge and recollection of them extend

THE vanity and petulance of ANQUETIL DU PERON, with his illiberal reflections on some of the learned Members of the University of *Oxford*, extorted from him a letter in the *French* language, which has been admired for accurate criticism, just satire, and elegant composition. A regard for the literary reputation of his country, induced him to translate from a *Persian* original into *French*, the Life of NADIR SHAH, that it might not be carried out of *England*, with a reflection that no person had been found in the *British* dominions capable of translating it. The students of *Persian* literature must ever be grateful to him for a grammar of that language, in which he has shewn the possibility of combining taste and elegance with the precision of a grammarian, and every admirer of *Arabic* poetry must acknowledge his obligations to him for an *English* version of the seven celebrated poems, so well known by the name of *Moallakat*, from the distinction to which their excellence had entitled them, of being suspended in the temple of *Mecca*. I should

screely think it of importance to mention, that he did not disdain the office of Editor of a *Shawari* and *Persian* work, if it did not afford me an opportunity of adding, that the latter was published at his own expence, and was sold for the benefit of insolvent debtors A similar application was made of the produce of the *SIRAJIYYAH*

Of his lighter productions, the elegant amusements of his leisure hours, comprehending hymns on the *Hindoo* mythology, poems, consisting chiefly of translations from the *Arabic* languages, and the version of *SACONTALA*, and ancient *Indian* drama,—it would be unbecoming to speak in a style of importance which he did not himself annex to them. They shew the activity of a vigorous mind, its fertility, its genius, and its taste. Nor shall I particularly dwell on the discourses addressed to this Society, which we have all perused or heard, or on the other learned and interesting dissertations, which form so large and valuable a portion of the records of our researches, let us lament that the spirit which dictated them is to us extinct, and that the voice to which we listened with improvement and rapture, will be heard by us no more.

But I cannot pass over a paper, which has fallen into my possession since his demise, in the hand-writing of Sir WILLIAM JONES himself, entitled *DESIDERATA*, as more explanatory than any thing I can say of the comprehensive views of his enlightened mind It contains, as a perusal of it will shew, whatever is most curious, important, and instructive, in the sciences and histories of *India*, *Arabia*, *China*, and *Tartary*, subjects which he had already most ably discussed in the disquisitions which he laid before the Society

DESIDERATA.

INDIA.

I

The Ancient Geography of INDIA, &c from the *Purânae*

II.

A Botanical Description of INDIAN Plants, from the *Câshas*, &c.

III

A Grammar of the *Sanskrit* Language, from *Pâini*, &c.

IV

A Dictionary of the *Sanskrit* Language, from thirty-two original Vocabularies and *Niructi*.

V

On the Ancient Music of the *Indians*

VI

On the Medical Substances of *India*, and the *Indian* Art of Medicine

VII.

On the Philosophy of the Ancient *Indians*

VIII.

A Translation of the *Veda*

IX.

On Ancient *Indian* Geometry, Astronomy, and Algebra.

X

A Translation of the *Purânae*.

XI.

Translations of the *Mahâbhârata* and *Râmâyana*.

XII.

On the *Indian* Theatre, &c &c.

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XIII. On

XIII.

On the *Indian Constellations*, with their Mythology, from the *Puranas*.

XIV

The History of *India* before the *Mahometan Conquest* From the *Sanskrit Cashmir Histories*.

ARABIA.

XV.

The History of *Arabia* before MUHAMMED.

XVI.

A Translation of the *Hamasah*.

XVII.

A Translation of HARIKI

XVIII.

A Translation of the *Ficabatit Khulafâ*
Of the *Câfiat*.

PERSIA.

XIX

The History of *Persia*, from Authors in *Sanskrit, Arabic, Greek, Turkish,*
Persian, ancient and modern.

FIRDAUSI's-*Khosrau nâmâ*.

XX.

The five Poems of NIZAMI, translated in prose.
A Dictionary of pure *Persian*. *Jehangir*.

CHINA

XXI.

A Translation of the *Shi-êng*.

XXII.

The Text of CAN-SU-TSU verbally translated.

T A R T A R Y

XXIII.

A History of the *Tartar* Nations, chiefly of the *Moguls* and *Othmunes*, from the *Turkis* and *Persian*.

We are not authorized to conclude that he had himself formed a determination to complete the works which his genius and knowledge had thus sketched, the task seems to require a period beyond the probable duration of any human life, but we who had the happiness to know Sir WILLIAM JONES, who were witnesses of his indefatigable perseverance in the pursuit of knowledge, and of his ardour to accomplish whatever he deemed important, who saw the extent of his intellectual powers, his wonderful attainments in literature and science, and the facility with which all his compositions were made, cannot doubt, if it had pleased Providence to protract the date of his existence, that he would have ably executed much of what he had so extensively planned.

I HAVE hitherto principally confined my discourse to the pursuits of our late President, in oriental literature, which, from their extent, might appear to have occupied all his time, but they neither precluded his attention to professional studies, nor to science in general. Amongst his publications in Europe, in polite literature, exclusive of various compositions in prose and verse, I find a translation of the Speeches of Isaeus, with a learned comment, and in law, an Essay on the Law of Bailments. Upon the subject of this last work, I cannot deny myself the gratification of quoting the sentiments of a celebrated historian.—“Sir WILLIAM JONES has given an in-

“genious

" genious and rational Essay on the Law of Bailments. He is perhaps the
 " only lawyer equally conversant with the year-books of *Westminster*, the
 " Commentaries of *ULPIAN*, the Attic Pleadings of *ISAEUS*, and the Sen-
 " tences of *Arabian* and *Persian Codius*."

His professional studies did not commence before his twenty-second year, and I have his own authority for asserting, that the first book of *English* jurisprudence which he ever studied, was *FORTESCUE'S* Essay, in Praise of the Laws of *England*.

Of the ability and conscientious integrity with which he discharged the functions of a Magistrate, and the duties of a Judge of the Supreme Court of Judicature, in this settlement, the public voice and public regret bear ample and merited testimony. The same penetration which marked his scientific researches, distinguished his legal investigations and decisions, and he deemed no enquiry burthensome which had for their object substantial justice under the rules of law.

His addresses to the jurors are no less distinguished for philanthropy and liberality of sentiment, than for just expositions of the law, perspicuity and elegance of diction; and his oratory was as captivating as his arguments were convincing.

In an epilogue to his Commentaries on *Ancient Poetry*, he bids farewell to polite literature without relinquishing his affection for it, and concludes with an intimation of his intention to study law, expressed in a wish which we now know to have been prophetic.

*Mis sit ero, non inutilis erga,
Non industria lingua, nec turpis manus!*

I HAVE already enumerated attainments and works which, from their diversity and extent, seem far beyond the capacity of the most enlarged minds, but the catalogue may yet be augmented. To a proficiency in the languages of *Greece*, *Rome*, and *Asia*, he added the knowledge of the philosophy of those countries, and of every thing curious and valuable that had been taught in them. The doctrines of the *Academy*, the *Lyceum*, or the *Portico*, were not more familiar to him than the tenets of the *Yedas*, the mysticism of the *Sufis*, or the religion of the ancient *Persians*, and whilst with a kindred genius he perused with rapture the heroic, lyric, or moral compositions of the most renowned poets of *Greece*, *Rome*, and *Asia*, he could turn with equal delight and knowledge to the sublime speculations, or mathematical calculations of *BARROW* and *NEWTON*. With them also he professed his conviction of the truth of the *Christian* religion, and he justly deemed it no inconsiderable advantage that his researches had corroborated the multiplied evidence of revelation, by confirming the *Mosaic* account of the primitive world. We all recollect, and can refer to the following sentiments in his Eighth Anniversary Discourse.

" THEOLOGICAL inquiries are no part of my present subject, but I cannot refrain from adding, that the collection of tracts, which we call from their excellence the *Scriptures*, contain, independently of a divine origin, more true sublimity, more exquisite beauty, purer morality, more important history, and finer strains both of poetry and eloquence, than could be collected within the same compass from all other books that were ever composed in any age, or in any idiom. The two parts, of which the scriptures consist, are connected by a chain of compositions, which bear no resemblance

" semblance in form or style to any that can be produced from the stores of
 " *Grecian, Indian, Persian, or even Arabian* learning. The antiquity of
 " those compositions no man doubts, and the unrestrained application of
 " them to events long subsequent to their publication, is a solid ground of
 " belief that they were genuine predictions, and consequently inspired "

THERE were, in truth, few sciences in which he had not acquired considerable proficiency, in most his knowledge was profound. The theory of music was familiar to him, nor had he neglected to make himself acquainted with the interesting discoveries lately made in Chemistry, and I have heard him assert, that his admiration of the structure of the human frame, had induced him to attend for a season to a course of anatomical lectures, delivered by his friend the celebrated HUNTER.

His last and favourite pursuit was the study of *Botany*, which he originally began under the confinement of a severe and lingering disorder, which, with most minds, would have proved a disqualification from any application.

It constituted the principal amusement of his leisure hours. In the arrangements of LINNÆUS he discovered system, truth, and science, which never failed to capture and engage his attention, and from the proofs which he has exhibited of his progress in *Botany*, we may conclude that he would have extended the discoveries in that science. The last composition which he read in this Society, was a description of select *Indian* plants, and I hope his Executors will allow us to fulfil his intention of publishing it in a number of our Researches.

It cannot be deemed useless or superfluous to enquire, by what arts or method he was enabled to attain to a degree of knowledge, almost universal,
 and

and apparently beyond the powers of man, during a life little exceeding forty-seven years.

THE faculties of his mind, by nature vigorous, were improved by constant exercise; and his memory, by habitual practice, had acquired a capacity of retaining whatever had once been impressed upon it. To an unextinguished ardour for universal knowledge, he joined a perseverance in the pursuit of it, which subdued all obstacles, his studies began with the dawn, and, during the intermissions of professional duties, were continued throughout the day reflection and meditation strengthened and confirmed what industry and investigation had accumulated. It was a fixed principle with him, from which he never voluntarily deviated, not to be deterred by any difficulties that were surmountable, from prosecuting to a successful termination what he had once deliberately undertaken.

BUT what appears to me more particularly to have enabled him to employ his talents so much to his own and the public advantage, was the regular allotment of his time to particular occupations, and a scrupulous adherence to the distribution which he had fixed, hence, all his studies were pursued without interruption or confusion nor can I here omit remarking, what may probably have attracted your observation as well as mine, the candour and complacency with which he gave his attention to all persons, of whatever quality, talents, or education - he justly concluded that curious or important information might be gained even from the illiterate; and wherever it was to be obtained, he sought and seized it.

OF the private and social virtues of our lamented President, our hearts are the best records. To you who knew him, it cannot be necessary for me

to expatiate on the independence of his integrity, his humanity, probity, or benevolence, which every living creature participated, on the stability of his conversation and manners, or his modest unassuming deportment, nor need I remark that he was totally free from pedantry, as well as from arrogance and self-sufficiency, which sometimes accompany and disgrace the greatest abilities - his presence was the delight of every society, which his conversation exhilarated and improved, and the public have not only to lament the loss of his talents and abilities, but that of his example.

To him, as the Founder of our Institution, and whilst he lived its firmest support, our reverence is more particularly due - instructed, animated, and encouraged by him, genius was called forth into exertion, and modest merit was excited to distinguish itself. Anxious for the reputation of the Society, he was indefatigable in his own endeavours to promote it, whilst he cheerfully assisted those of others. In losing him, we have not only been deprived of our brightest ornament, but of a guide and patron, on whose instructions, judgment, and candour, we could implicitly rely.

But it will, I trust, be long, very long, before the remembrance of his virtues, his genius, and abilities, lose that influence over the Members of this Society which his living example had maintained, and if, previous to his demise, he had been asked, by what posthumous honour or attention we could best show our respect for his memory, I may venture to assert he would have replied, "by exerting yourselves to support the credit of the Society," applying to it, perhaps, the dying wish of Father Paul, "Esto perpetua."

XIII.

A TREATISE ON THE BAROMETER.

BY FRANCIS BALFOUR, ESQ

I

IN a Treatise, published at this place a few weeks ago, on Sol-Lunar Influence in Fevers, I have endeavoured to shew, "That all Fevers are liable to certain diurnal and septenary* revolutions, and that these revolutions are uniformly and constantly connected with fixed periods of time."

II

HAVING established this proposition (I.), it was natural to suppose that the power or influence which is capable of producing these very remarkable and interesting revolutions on the human constitution, at certain intervals, did not exert itself without effecting, at the same time, some corresponding periodical change in the state of that element in which we constantly exist, under which all the operations of life and nature are carried on.

OTHER necessary avocations having hitherto prevented me from being able to make those experiments myself that are required for deciding on this question, I applied to Mr. FAIRFAX, who, I understood, had paid some attention to this subject, and was favoured with the following very obliging and instructive letter.

* That is to say, changes happening after an interval of seven or eight days

A TREATISE ON
TO DOCTOR BALFOUR.

" DEAR SIR,

" You likewise desire me to give you some account of the regular diurnal variations of the Barometer which take place in this country, and which, I said, I conceived to be peculiar to tropical climates, from the otherwise unaccountable silence of every author whose work I had been able to consult on the subject. The first intimation of this was from MR HENRY TRAIL, who informed me that he had observed the Mercury to rise every night till about eleven o'clock, when it became stationary. I immediately repeated his observations, and found that the fact was certain, but that there was likewise another diurnal variation, which had escaped his notice. After numerous observations, at all hours during the day and night, I found that the Mercury is subject to the following variations, with the utmost degree of regularity, throughout the whole year. From six in the morning till between seven and eight, it is stationary, it then rises till nine, sometimes, though rarely, till ten, when it remains stationary till noon, it then descends, and is lowest at three, and continues stationary till eight; when it begins to rise, and continues till eleven, and is then at the same height that it was at nine in the morning.

" On relating the above observations to the late Colonel PRANCE, an indefatigable and rigidly accurate observer, and who had devoted much time and attention to Barometrical pursuits, he was surprised that such regular variations of the Mercury should have escaped his observation. but some time after, with great candour acknowledged the certainty of the fact, and framed an hypothesis to account for it, which you will probably be able to obtain on an application to Captain GRACE.

" To

" To me the phenomena appear inexplicable to any hypothesis that I can think of. The periods are evidently connected with the earth's diurnal motion; and, if we had not a satellite, might be easily explained by the atmospheric tides caused by the sun. But when we find that the Barometer is not, in the least observable degree, affected by the moon's passage over the meridians, or by the united action of the sun and moon at the syzygies, we have absolute proof that this cannot be the cause, neither can the expansion of the Mercury, being directly opposite to the phenomena, the greatest degree of heat taking place at three o'clock, when the Mercury is lowest.

" With respect to the influence of the moon on the atmosphere, I was perfectly satisfied while in *Beerboom*, that the cold season set in at the syzygies only, and that there was always a considerable increase of cold at every return of them. But at the old powder-works near *Calcutta*, I observed the greatest degree of cold to happen sometimes at the quadratures. Being, however, at that time much engaged in other pursuits, I did not attend to the circumstance of the moon's *absolute distance*, though of the utmost consequence in all calculations of the heights of the tide, to which the variations of the state of the atmosphere, occasioned by the attraction of the sun and moon, must be analogous. And yet this fact, important as it is to every sea-faring person, especially in river-navigation, as well as to ship-builders, for predicting the highest spring-tides, seems to be totally unknown to the generality of those persons, nor is it surprising, as it is not taken notice of in any treatise on navigation that I have met with. But M DE LA LANDE (Astronomy, vol nr p 656) shews, that if the moon's mean force to raise the waters of the ocean be two and a half, her greatest force when *Apogee*, will be three, and her least when *Perigee*, two a difference sufficient to account for the tides at the quadratures being sometimes nearly as high as those at the syzygies a circumstance which was ascertained by part of a committee inst-

tuted for examining plans for new powder-works at the Old Fort Ghaut, where stakes had been driven, on purpose to find the rise of the tide. M. DE LA LANDE confirms the theory by many observations, made with great accuracy in some of the ports of France (Supplement, vol. iv.); and I can vouch for the fact by numerous measures of the heights of the tide, both at the old and new powder-works. But you may easily satisfy yourself of the fact, by observing the height of a few tides at Champaul Ghaut, when you will find, invariably, that every great parallax of the moon, at the syzygies, is attended with a very high tide and strong bore, and *vice versa*. I have not been able to observe that the moon's declination, notwithstanding what you may have heard from other quarters, has any perceptible effect on the tides.

"I HAVE been the more particular on this subject, as I have heard it made in unanswerable objection to your system, that the first attacks of intermit-
ter fever do happen at the quadratures as well as the syzygies, and that re-
lapses do likewise happen at the quadratures. Now, should you meet with
any such cases the above observations may perhaps tend to reconcile them
to your system, &c.

JOHN FARQUHAR."

Buny Bazar, 12th Feb 1794

III

A THOUGH IN this letter Mr. FARQUHAR describes in the Barometer only three different diurnal periods of rising and falling, I could not help suspecting that there must likewise be a *fourth*, which had escaped his notice, and that I should be able to discover a periodical failing also in the state of the mercury, between eleven at night and six in the morning, analogous to that which he had observed between eleven at mid-day and six in the evening.

Accordingly,

Accordingly, by keeping myself awake, and continuing my observations during the night, I have now the satisfaction to be assured that my anticipation of the revolution I expected to discover, was perfectly just.

IV

WITH a view of ascertaining the progress of these four different revolutions by personal observation, I imposed upon myself the task of observing and recording the changes of the Barometer, as far as I was able, every half-hour, day and night, during the period of one complete lunation.

THE result of this undertaking I have now the honour to lay before the Society, and if in matter or form it contains any thing worthy of their attention, or of a place amongst their Researches, it will afford me a degree of satisfaction that will more than reward me for my labour

I. OF THE PERIODICAL DIURNAL CHANGES
OF THE BAROMETER

THE DETAIL OF FACTS

V

THE Detail of Facts is comprehended in the following record of observations made on the Barometer, as regularly as I was able to perform it, every half-hour, both day and night, during the lunation which intervened between the 31st of March and the 7th of April 1794 To these I have added the state of the Thermometer and Wind, with the appearance of the sky

VI

My observations of the *Barometer* were taken with scrupulous exactness; and although the weighty hand of sleep has more than once deprived me of observations that I was just about to make, and was anxious to record, I have never ventured to assume any probable state of the Mercury as an actual observation.

VII

WITH respect to the *Thermometer*, although it was liable to some inaccuracy from my not being able to preserve the apartment in which it was hung, uniformly open or shut, yet, as the variations from this cause were trifling, and never obscured the regular and progressive rise and fall which it observes at different periods of the day, I conceive that my record is sufficiently exact for enabling me to decide, with safety, that the daily fluctuations which appeared in the Barometer, were *not* connected with the daily vicissitudes of heat and cold.

VIII

ALTHOUGH the state of the wind was not measured by any instrument, but estimated only grossly by the effect which it appeared to produce on the trees and other objects around, still I conceive that I may also venture to determine on this ground, that the diurnal fluctuation of the Mercury was *not* connected with the state of the wind.

Is the column appropriated for recording the state of the wind, *Number 1* represents a breeze capable of carrying on a ship two or three miles in the hour, *Number 2*, a breeze capable of carrying on a ship four or five miles, and *Number 3*, a breeze capable of carrying on a ship six, seven, or eight miles.

IX. NEITHER

IX

NEITHER are the *appearances of the sky* defined with much precision or minuteness, yet, upon the description that I have given, I think I may pronounce with sufficient confidence, that they did *not* direct or regulate the periodical diurnal fluctuation of the Barometer.

BY conceiving the wind, which in the month of *April* is generally from some point in the south, carrying constantly along with it, in the different degrees of velocity I have described (VIII) different proportions of light and heavy clouds, we may obtain a tolerably just idea of the appearance of the sky at *Calcutta* during that month.

To express these different states, we have employed in the record the terms *clear*, *cloudy*, and *overcast*. When few clouds only appear, or none, which is seldom the case at this season, the sky is said to be *clear*, when the sun or stars shine through a number of clouds, the sky is said to be *cloudy*, and when the sun or stars do not appear at all, the sky is said to be *overcast*.

N.B. As the record of observations from which these negative propositions (VII VIII. IX.) respecting the *thermometer*, the state of the wind, and appearance of the sky are inferred, is voluminous, and would necessarily exclude from this volume of the Researches matter that is much more interesting, it has been considered sufficient for the object of this paper, to insert only the opposite abstract, or *Synopsi*, of the observations made on the Barometer.

THE STATEMENT

XI

The sum of my observations respecting the four Periodical Diurnal Revolutions of the Barometer which I have described, appears at one view in the preceding Synoptical Arrangement, and when stated precisely in numbers, amounts to this

- 1st, THAT on every day of the thirty comprehended in the Record, excepting one (*a*), the Barometer constantly *fell* between ten at night and six in the morning, and that progressively, and without any intermediate rising, excepting in one instance (*b*)
- 2^d, THAT on every day of the thirty comprehended in the Record, without one exception, the Barometer constantly *rose* between six and ten in the morning, and that progressively, and without any intermediate falling, excepting in two instances (*c*) (*d*).
- 3^d, THAT on every day of the thirty comprehended in the Record, without one excep. on, the Barometer constantly *fell* between ten in the morning and six in the evening, and that progressively, and without any intermediate rising in any instance
- 4th, THAT on every day of the thirty comprehended in the Record, excepting two (*e*) (*f*), the Barometer constantly *rose* between six and ten in the evening, and that progressively, and without any intermediate falling in any instance

(*a*) Between the 20th and 21st—*No* Synop.

(*b*) Between the 2nd and 3rd—*ditto*

(*c*) On the 11th, — — *ditto*.

(*d*) On the 23d, — — *ditto*.

(*e*) On the 15th, — — *ditto*.

(*f*) On the 20th, — — *ditto*.

THE INFERENCE

XII

From the preceding statement of the coincidences, observed in these four portions of the day, it appears that we may reasonably infer the following propositions, limited to *Calcutta* in the month of *April* 1794.

- 1st.* THAT, in the interval between ten at night and six in the morning, there existed a *prevailing tendency* in the Mercury, to *fall*.
- 2d,* THAT, in the interval between six and ten in the morning, there existed a *prevailing tendency* in the Mercury to *rise*.
- 3d,* THAT, in the interval between ten in the morning and six in the evening, there existed a *prevailing tendency* in the Mercury to *fall*.
- 4th,* THAT, in the interval between six and ten in the evening, there existed a *prevailing tendency* in the Mercury to *rise*.

These different prevailing tendencies to rise and fall periodically at certain times of the day and night, necessarily imply a proportionate corresponding cause sufficient to produce them. But here we stop, and venture to proceed no farther than to say, with Mr FARQUHAR, that they seem to be connected with the diurnal revolutions of the planet which we inhabit.

XIII

By an attentive examination of the Synopsis, it will appear that the general characters of the tendencies which prevail at the different periods we have described, are liable, within their respective limits, to several remarkable *variations*, viz.

- 1 With regard to the *time of beginning* to rise or fall.
- 2 With regard to the *time of ceasing* to rise or fall.
- 3 With regard to the *steps or degrees* by which the Mercury rises or falls.
- 4 With regard to the *limits or extremes* to which it rises or falls.

BEING under the necessity of acknowledging our ignorance of the cause which produces these *prevailing tendencies themselves*, we can of course have no adequate idea or conception in theory of the different circumstances that are capable of producing the different *variations* which appear in their general character, and our observations being much too limited to establish, concerning them, any thing like practical rules, we must remain contented for the present with pointing them out as questions which want investigation expressing however a strong suspicion that they are not unconnected with the relative positions of the Moon, and the other planets

THE APPLICATION

XIV

At the time of digesting the ideas which I have delivered upon this subject, being possessed of no information but that which was communicated in Mr FARQUHAR's letter, and what I obtained afterwards from my own observations, I did not conceive that I was authorized to extend the propositions which I have advanced (XII) respecting these tendencies, beyond the limits of *Calcutta*. By a note, however, which is just now pointed out to me in Dr MOSLEY's very ingenious Treatise on Tropical Diseases (^a), I have the satisfaction to find that the very same tendencies have been observed to prevail on the opposite side of the globe. We may therefore now venture to allow them a more extensive range, and it will, no doubt, be considered of

(a) The Note referred to in Dr MOSLEY's Treatise is thus: — "It has been observed in these and more equatorial regions, that though the barometer is useless in indicating the variations of the weather, it exhibits a phenomenon not correctly ascertained in temperate climates; which is that the Mercury has two diurnal motions of ascent and descent, of nearly a line corresponding with the course of the sun; ascending as the sun approaches the zenith and nadir, and descending as the sun deviates from these points. It remains stationary at its lowest and highest degrees for some hours."

some

some importance to establish in certain latitudes (*b*) the existence of a law in nature by which the Mercury of the Barometer, let the standing weight and pressure of the atmosphere be what it may, is liable to the effects of a constant and regular periodical diurnal fluctuation; for it will then follow that the power of each succeeding hour to raise or sink it, is liable to differ from that which went before, *that* the height of the Mercury, therefore, taken only at two or three stated hours of the day, cannot with propriety be assumed to represent or form a just estimate of the whole twenty-four, *that* calculations proceeding hitherto on such partial grounds, must necessarily include error and require adjustment, and *that* in future, wherever this law extends, no correct philosophical investigation connected with the nature of the atmosphere, can be carried on without giving it a place (*c*), and no just prognostic formed of the weather without distinguishing those regular and constant changes from such as are only occasional and temporary.

(*b*) As far as I can judge from the following extract from Father Corré's *Mémoire* on the prevailing winds, &c &c which I have just met with in the *Edinburgh Magazine* for March 1792, there seems to be great reason to believe, that similar fluctuations take place in the Mercury, in the different latitudes of Europe, and that they are not entirely confined to the regions under the equator.

"The Mercury is generally a little lower about two o'clock in the afternoon than at any other time of the day, and it is highest towards eight o'clock at night. I would compare this fact without pretending to draw any consequences from it, with the phenomenon of the magnetic needle, the greatest variation of which from north towards west takes place about two or three in the afternoon, and the least about eight o'clock in the morning"—See the *Edinburgh Magazine* for March 1792, page 221 par 6

(*c*) A mean, extracted from means obtained from the extremes of these different diurnal fluctuations, will give the mean weight of the atmosphere much more correctly than the common process.

WITH respect to Medicine, this law is a principle entirely new, and it has now become a matter of real consequence, to ascertain in what respects it co-operates with the power of the sun and moon in producing and regulating the paroxysms of fevers. From the striking coincidence of these tendencies with the periods at which the paroxysms of fevers generally attack and remit, and from their superior prevalence in tropical climates where the paroxysms of fever are also most prevalent, "it seems to be highly probable that they may have a considerable share in constituting that power which shews itself in so remarkable a manner in this country, and which we have denominated Sol-Lunar Influence."

II OF THE PERIODICAL SEPTENARY CHANGES OF THE BAROMETER

XXV

RESPECTING periodical septenary changes in the state of the Barometer, the only information I have been able to obtain, is extracted from an abridged Exposition of the System of Mr TOALDO upon the probability of the change of weather by the lunar points taken from the *Journal des Sciences Utiles*, and published in the *Calcutta Magazine* for July and August 1793. Mr TOALDO, it appears, in order to ascertain whether the moon had any influence on the Mercury, collected a journal of the Barometer kept for several years, from which he discovered that the Barometer was six-tenths of a line higher at the times of the quadratures than at the syzygies.

IF this journal was kept correctly on a proper plan, periodical septenary changes in the Barometer connected with the revolutions of the moon, are established of course. But if it was kept in the ordinary way of assuming two or three observations taken in the course of the day, to serve as a standard or rule

rule for estimating the state of the whole twenty-four, it is evidently *liable to errors*, which render the calculation precarious and inconclusive for the reasons already explained, which however had not occurred to me at the time of writing my last Treatise on Sol-Lunar Influence

THAT the Barometer will be differently affected at the springs and neaps, is an anticipation which has in its favour the strongest probability that analogy can afford Yet, upon a review of the observations collected during the springs and neaps of the lunation which I have observed, I cannot say that, when arranged as they stand in the Synopsis, in coincidence with their respective periods, they exhibit a difference of character to establish this conclusion We therefore leave it to the decision of a far more extensive experience, conducting its observations on a plan similar to that which we have exemplified in this Treatise

In looking over Dr MOSLEY's Treatise on this occasion, I am sorry to discover that trusting too much to memory, in referring to his work to my last publication, I have given a very imperfect account of what he has communicated on the subject of Sol-Lunar Influence But when he considers that by my inaccuracy I have deprived myself of the weight of his authority in supporting a propos too I was anxious to establish, he will be melined to ascribe it to the cause I have stated Dr MOSLEY's observations are contained in the Conclusion to his Treatise, between page 550 and 556 they confirm the power of Sol-Lunar Influence in Europe in a very unequivocal manner, and merit the attention of those who wish for information on this subject —For the note to which this remark refers, vide page 204

XIV.

ON THE DUTIES OF A FAITHFUL HINDU WIDOW

BY HENRY COLERBROOKE, ESQ.

WHILE the light which the labours of the *Asiatic Society* have thrown on the sciences and religion of the *Hindus*, has drawn the attention of the literary world to that subject, the hint thrown out by the President for rejecting the authority of every publication preceding the translation of the *Gita*, does not appear to have made sufficient impression. Several late compilations in *Europe* betray great want of judgment in the selection of authorities, and their motley dress of true and false colours tends to perpetuate error, for this reason it seems necessary on every topic, to revert to original authorities for the purpose of cancelling error or verifying facts already published, and this object will no way be more readily attained than by the communication of detached essays on each topic, as it may present itself to the Orientalist in the progress of his researches.

From this or any other motive for indulgence, should the following authorities from *Sanskrit* books be thought worthy of a place in the next volume of the Society's Transactions, I shall be rewarded for the pains taken in collecting them.

" HAVING first bathed, the widow, dressed in two clean garments, and holding some *cusa*-grass, sips water from the palm of her hand Bearing

" *cusa* and *tula* (*a*) on her hand, she looks towards the east or north while
 " the *Brahmana* utters the mystic word *Om* Bowing to *Nerayana*, she next
 " declares (*b*) " On this month, so named in such a *Pascha*, on such a *tithi*,
 " I (naming herself and her (*c*) family) that I may meet *ARTUNDHATI* (*d*)
 " and reside in *Swarga*, that the years of my stay may be numerous as the
 " hairs on the human body, that I may enjoy with my husband the felicity
 " of heaven, and sanctify my paternal and maternal progenitors, and the an-
 " cestry of my husband's father, that lauded by the *Apsarases*, I may be hap-
 " py with my lord, through the reigns of fourteen *INDRAS*, that expiation
 " be made for my husband's offences, whether he has killed a *Brahmana*,
 " broken the ties of gratitude, or murdered his friend, thus I ascend my hus-
 " band's burning pile I call on you, ye guardians of the eight regions of
 " the world! Sun and Moon! Air, Fire, Ether (*e*), Earth, and Water!
 " My own soul! *Yama*! Day, Night, and Twilight! And thou, Conscience,
 " bear witness I follow my husband's corpse on the funeral pile (*f*) "

" HAVING repeated the *Samapta*, she walks thrice round the pile, and
 the *Brahmana* utters the following *Mantras*

(*a*) *Sesame*

(*b*) This declaration is called the *Samapta*

(*c*) *Gra*, the family or race Four great families of *Brahmanas* are now extant, and have
 branched into many distinct races. Since the memorable massacre of the *Cshatryas*, by *Paras Rama*, the *Cshatryas* describe themselves from the same *Gra*, as the *Brahmanas*

(*d*) Wife of *Vaisht'ha*.

(*e*) *Adas*

(*f*) In several publications the woman has been described as placing herself on the pile before it be lighted, but the ritual quoted is conformable to the text of the *Bhagavata*

" When the corpse is about to be consumed in the *Sabhya** , the faithful wife who stood
 " without, rushes on the fire" NA SEDA TO YUOINT'HIRA

* Cabin of grass or leaves, sometimes erected on the funeral pile "The shed on the funeral pile of *Muni* is called *PABA O TAJA* and *SABA TAJA*" See the vocabulary entitled *HA RA ZALI*

Om!

" " Om ! Let these women, not to be widowed good wives, adorned with
 " collyrium, holding clarified butter, consign themselves to the fire. Im-
 " mortal, not childless, nor husbandless, excellent, let them pass into fire,
 " whose original element is water

From the *Rigveda*.

" " Om ! Let these wives, pure, beautiful, commit themselves to the fire,
 " with their husband's corpse

A Paurodica Mantra

" " WITH this benediction, and uttering the mystic *Namo Namah*, she as-
 " cends the flaming pile "

WHILE the prescribed ceremonies are performed by the widow, the son, or other near kinsman, of the deceased, applies the first torch, with the forms directed for funeral rites in the *Grhya* (g), by which his tribe is governed

THE *Sancalpa* is evidently formed on the words of ANGIRAS'

(g) Extracts or compilations from the sacred books, concerning the particular forms for religious ceremonies, to be observed by the race or family for whom that portion of the sacred writings has been adopted, which composes their *Grhya*. We learn from the *Bhagavata*, that VTA SA divided the *Veda* into four (*Rich, Yajub, Soma, and Atharva*) or five, including the *Shabda* or other *Paranas* as one *Veda*. TAILA accepted the *Rigveda*, JAIMINI and CAVI, or SUCAS, the *SamaVeda*, BAISAMPATANA learned the *YajurVeda*, SAMUVTU, DAKUKA, and others of the family of ANGIRAS, the *AtharvaVeda*. " My father (SUCAS, son of VTA SA, " speaks) selected he *Shabda* and *Paradas*, then the several *Rishis* chose the *Vides* variously " (parts of each). Their pupils, the successors of their pupils, and the pupils of these, became " followers of particular *Sikshas*."

" TH^E wife who commits herself to the flames with her husband's corpse,
" shall equal Arundhati, and reside in Swarga,

" ACCOMPANYING her husband, she shall reside so long in Swarga as are
" the thirty-five millions of hairs on the human body

" As the snake-catcher forcibly drags the serpent from his earth, so, bear-
" ing her husband from hell, with him she shall enjoy heavenly bliss.

" Dying with her husband, she sanctifies her maternal and paternal an-
" cestors, and the ancestry of him to whom she gave her virginity.

" S^ECH a wife, adoring her husband, in celestial felicity with him, greatest,
" most admired (4), with him shall enjoy the delights of heaven while fourteen
" INDRAS reign.

" THOUGH her husband had killed a Br^Hmana (5), broken the ties of
" gratitude, or murdered his friend, she expiates the crime "

ANGIRAS

THE Mantras are adopted on the authority of the BRAHMA Purana.

" WHILE the pile is preparing, tell the faithful wife of the greatest duty of
" woman, she is loyal and pure who burns herself with her husband's corpse.

(4) The word in the text is expounded " lauded by the choir of heaven, Gandharvas," &c.

(5) The commentators are at the pains of shewing that this exaption must refer to a crime committed in a former existence, for funeral rites are refused to the murderer of a Br^Hmana

" Hearing

" Hearing this, fortified in her resolution, and full of affection, she completes the PITRIMORDHA K'ga (3), and ascends to Swarga." *

BRAHME Purana.

IT is held to be the duty of a widow to burn herself with her husband's corpse, but she has the alternative,

" On the death of her husband, to live as *Brahmachari*, or commit herself to the flames." *

VISHNU

THE austerity intended consists in chastity, and in acts of piety and mortification.

" THE use of *Tambula*, dress, and feeding off vessels of tutenague is forbidden to the *Yati* (1), the *Brahmachari*, and the widow.

PRACHE'TAS

" THE widow shall never exceed one meal a day, nor sleep on a bed if she do so, her husband falls from *Swarga*.

" SHE shall eat no other than simple food, and (m) shall daily offer the tarpana of *cusa*, *tila*, and water (n)

(1) Act of burning herself with her husband.

(l) *Sanyasi*.

(m) If she has no male descendants See *Madana Paraga*

(n) Oblations for the names of ancestors to the third degree, though not exclusively, for the prayer includes a general petition for remote ancestors Yet daily oblations (*Purnaprasna*) are separately offered for ancestors beyond the third degree.

" IV

" In *Vas'ikā, Cātummā, and Māghe* she shall exceed the usual duties
" of ablation, alms, and pilgrimage, and often use the name of God in
" prayer."

The *Svārīti.*

AFTER undertaking the duty of a *Sati*, should the widow recede, she incurs the penalties of defilement.

" If the woman, regretting life, recedes from the pile, she is defiled, but
" may be purified by observing the fast called *Prayupatyā*" (o)

APASTAMBA

THOUGH an alternative be allowed, the *Hindu* legislators have shown themselves disposed to encourage widows to burn themselves with their husband's corpse.

Ha'sī'tā thus defines a loyal wife " She, whose sympathy feels the pains
" and joys of her husband, who mourns and pines in his absence, and dies
" when he dies, is a good and loyal wife.

Harita.

" ALWAYS revere a loyal wife, as you revere the *Drvatās*; for, by her
" virtues, the prince's empire may extend over the three worlds "

MATSYA PURANA

(o) It extends to twelve days; the first three, a spare meal may be taken once in each day; the next three, once in each night, the succeeding three days, nothing may be eaten but what is given unsolicited; and the last three days are a rigid fast.

" THOUGH

" Tho'ver the husband died unhappy by the disobedience of his wife
 " if from motives of love, disgust of the world, fear of living unprotected,
 " or sorrow, she commit herself to the flames, she is entitled to venera-
 " tion."

Mahā Bhārata

OBSEQUIES for suicides are forbidden; but the *Rigvēda* expressly declares, "that the loyal wife who burns herself, shall not be deemed a suicide." When a mourning of three days has been completed, the Srāddha "is to be performed." This appears, from the prayer for the occasion, "directed in the *Rigvēda*"

REGULARLY the chief mourner for the husband and for the wife, would, in many cases, be distinct persons but the BHAVIYATA *Purana* provides, that

" WHEN the widow consigns herself to the same pile with the corpse of the deceased, whoever performs the *Cryd* for her husband, shall perform " it for her "

" As to the ceremonies from the lighting of the funeral pile to the *Pinda*, " whoever lights the pile, shall also offer the *Pinda*"

VĀYU Purāna.

IN certain circumstances the widow is disqualified for this act of a *Sati*.

* The shortness of the mourning is honourable; the longest mourning is for the lowest tribe.

" SHE,

" Six who has an infant child, or is pregnant, or whose pregnancy is doubtful, or who is unclean, may not, O princess ! ascend the funeral pile.

" So said NA'EDA to the mother of SAHARA."

" The mother of an infant shall not relinquish the care of her child to ascend the pile, nor shall one who is unclean (from a periodical cause) or whose time for purification after child-birth is not passed, nor shall one who is pregnant, commit herself to the flames (q) But the mother of an infant may, if the care of the child can be otherwise provided "

VRIHASPATI.

In the event of a *Brahmana* dying in a distant country, his widow is not permitted to burn herself.

" A *Vipra* or *Brahmana* may not ascend a second pile."

GOTAMA.

But with other castes, this proof of fidelity is not precluded by the remote decease of the husband, and is called *Anugamana*

" THE widow, on the news of her husband's dying in a distant country, should expeditiously burn herself so shall she obtain perfection "

VYASA

(q) It has been erroneously asserted, that a wife, pregnant at the time of her husband's death, may burn herself after delivery *Hindoo* authorities positively contradict it In addition to the text it may be remarked, that it is a maxim, " What was prevented in its season, may not afterwards be resumed."

" SHOULD

" SHOULD the husband die on a journey, holding his *sandals* to her breast,
" let her pass into the flames."

BRAHMA Purana

The expression is not understood of *sandals* exclusively for thus USANAS or SUCRA.

" EXCEPT a *Vipra*, the widow may take any thing that belonged to her husband, and ascend the pile

" But a *Vipra* may not ascend a second pile, this practice belongs to other tribes."

SUCRA

In two of the excepted cases, a latitude is allowed for a widow desirous of offering this token of loyalty, by postponing the obsequies of the deceased for VYASA directs that, " If the loyal wife be distant less than the journey of a day, and desire to die with her husband, his corpse shall not be burnt until she arrive. And the Bhavishya Purana permits that the corpse be kept one night, if the third day of her unchanness had expired when her husband died."

With respect to a circumstance of time (r), which might on some occasions be objected, the commentators obviate the difficulty, by arguing from several texts, " that to die with or after her husband, is for a widow *Nas-*

(r) Occasional observances are omitted on intercalary days.

" *mūrtī* (१) and *Cāmya* (२), and consequently allowable in the intercalary month," for DAŚĀHĀ teaches, that " whenever an act both *Mūrtī* and *Cāmya* is in hand, it is then to be performed without consulting season " They are at the trouble of removing another difficulty

" DHRITARĀSHTRA, in the state of *Samādhi*, quitted his terrestrial form to proceed to the *Mlecchī*, or *beatitude*, which awaited him. When the leaves and wood were lighted to consume the corpse, his wife GA'NDHA'RĪ was seen to pass into the flames Now also, a husband dying at *Cas*, and attaining *Mlecchī*, it becomes his widow to follow the corpse in the flames "

It were superfluous to pursue commentators through all their frivolous distinctions and laborious illustrations on latent difficulties

ALL the ceremonies essential to this awful rite are included in the instructions already quoted But many practices have been introduced, though not sanctioned by any ritual A widow who declares her resolution of burning herself with the corpse, is required to give a token of her fortitude and it is acknowledged, that one who receded after the ceremony commenced, would be compelled by her relations to complete the sacrifice This may explain circumstances described by some who have witnessed the melancholy scene

OTHER ceremonies noticed in the relations of persons who have been present on such occasions, are directed in several rituals

- (१) Eventual, incumbent when a certain event happens
- (२) Optional, done for its reward

" ADORNED with all jewels, decked with *mūmūrī* and other customary
 " ornaments, with the box of *mūmūrī* in her hand, having made *pūjā*, or ado-
 " ration to the *Devibhūts*, thus reflecting that *this life is sought my lord and*
 " *master to me was all*, — she walks round the burning pile she bestows
 " jewels on the *Brahmanas*, comforts her relations, and shows her friends the
 " attentions of civility, while calling the Sun and elements to witness, she
 " distributes *mūmūrī* at pleasure, and having repeated the *Sancalpa*, proceeds
 " into the flames there embracing the corpse, she abandons herself to the
 " fire, calling *Satya! Satya! Satya!*"

THE bye-standers throw on butter and wood for this, they are taught, that they acquire merit exceeding ten million fold, the merit of an *Araṇīmādhu*, or other great sacrifice Even those who join the procession from the house of the deceased to the funeral pile, for every step are rewarded as for an *Araṇīmādha* Such indulgences are promised by grave authors they are quoted in this place only as they seem to authorize an inference, that happily the martyrs of this superstition have never been numerous It is certain that the instances of the widow's sacrifice are now rare on this it is only necessary to appeal to the recollection of every person residing in *India*, how few instances have actually occurred within his knowledge And, had they ever been frequent, superstition would hardly have promised its indulgences to spectators

XV.

ON THE TRACES
OF THE HINDU LANGUAGE AND LITERATURE,
EXTANT AMONGST THE MALAYS,

BY WILLIAM MARSDEN, ESQ.

THE Sanscrit, or ancient language of the *Hindus*, is a subject so interesting in itself, that every discovery which contributes to throw light upon its history or to mark its extent, carries with it a degree of importance. The proofs of its influence in the northern countries of *Assam*, *Nepal*, *Boulan*, and *Thibet*, as well as in the southern parts of the peninsula of *India*, are to be found in the works of the Missionaries and the Researches of this Society, but the progress it made in early times, amongst the inhabitants of the eastern islands and countries possessed by the *Malays*, has not, I believe, been pointed out by any writer. My acquaintance with the language of the latter people, together with some attention paid to the dialects of *India* in general, have enabled me to observe, that the *Malayan* is indebted to the *Sanscrit* for a considerable number of its terms. I have also satisfied myself, that the intercourse by which this communication was effected, must have taken place in times anterior, probably by many centuries, to the conversion of these people to the *Mahometan* religion. The language, it is true, abounds at present with *Arabic* words, which their writers affect to introduce, because this display of literary skill is, at the same time a proof of their religious knowledge, but they are generally legal or metaphysical terms, borrowed from the *Koran* and its commentaries, are never expressive of simple ideas, have not been

been incorporated into the language (a few excepted) and are rarely made use of in conversation. The ~~new~~^{new} words, on the contrary, are such as the progress of civilization must soon have rendered necessary, being frequently expressive of the feelings of the mind, or denoting those ordinary modes of thought which result from the social habits of mankind, or from the evils that tend to interrupt them. It is not however to be understood, that the affinity between these languages is radical, or that the names for the common objects of sense are borrowed from the *Sanskrit*. The *Malayan* is a branch or dialect of the widely extended language prevailing throughout the islands of the *Archipelago*, to which it gives name (*), and those of the *South Seas*, comprehending between *Madagascar* on the one side, and *Easter Island* on the other, both inclusive, the space of full two hundred degrees of longitude. This consideration alone is sufficient to give it claim to the highest degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this species, though they have a wonderful accordance in many essential properties, have experienced those changes which separation, time, and accident produce, and in respect to the purposes of intercourse, may be classed into several languages, differing considerably from each other. The marks of cultivation by which the *Malayan* is distinguished from his ruder neighbours, are to be attributed, in my opinion, to the effects of an early connexion that must have subsisted between the inhabitants of this easterly peninsula and those of the continent of *India*, but what the nature and circumstances of this connexion may have been, it is not easy to determine. A spirit of foreign conquest, and still more, a zeal for the propagation of their religious tenets, appear incompatible with the

* The *Malay-Archipelago* may be understood to comprehend the *Sunda*, *Philippine*, and *Molucca* islands, in the maritime parts of which, the *Malayan* is used as a *langue franca*, genius,

genus of the *Hindu* system, excepting amongst the disciples of Brood, but I have never discovered in the *Malayan* customs or opinions any traces of the peculiar institutions of that extraordinary sect.

A COMMERCIAL intercourse has always subsisted between the manufacturing countries of *India* and the marts for the produce of the *Straits-islands*, such as *Johor*, *Singapoora*, and *Malacea*, and when the *Portuguese*, at the commencement of the sixteenth century, first visited these places, they mention with surprise the concourse of foreign vessels assembled there. But independently of other objections that might be raised to the probability of these traders having polished the language of the people whose ports they frequented, or having imparted to them their national literature, it is to be observed that by much the greater proportion of the ships belonging to native merchants, which now enter the straits of *Malacea*, come from the coast of *Cormandel*, and consequently are navigated by persons who speak the languages prevailing in that part, whereas it is evident, that, from the *Tesinge*, or the *Tamool*, the *Malayans* has not received any portion of its improvement, but from the genuine *Hindus* of the northern provinces, prior to its debasement by the mixture of *Arabic* nouns, and the abuse of verbal auxiliaries. If the communication must necessarily be supposed to have its origin in commerce, I should be inclined to consider the people of *Guzerat*, notwithstanding their distance, as the instructors of the *Malays*. Their resort to *Malacea* is particularly noticed by *DE BARRO*, and other authentic writers, and it is well known that the *Hindu* language has been preserved with more purity in that, than in any other maritime province of *Lidia*.

THE nature of the affinity suggested, will sufficiently appear to those who are conversant with the *Hindu* dialects, by the following examples of

Sanscrit

Souzot words, which are at the same time so familiar to the *Malays*, and so thoroughly incorporated into their vernacular tongue, that their foreign origin is never suspected, although the terms adopted from the *Arabs*, can, with very few exceptions, be immediately pointed out by the most ordinary scholar. It is true that he is assisted in this discrimination by the peculiarities of the *Arabic* orthography; for the *Malay*, as well as the *Persians* and other people, who, in consequence of their conversion to the faith of the *Koran*, employ this alphabet in their writings, do yet reject the use of certain letters, either as superfluous, or as not suited to the smoothness of their own sounds, and which therefore appear only in words purely *Arabic*. The *Hindooes* words, on the contrary, being divested of their proper dress, and clothed in common with those originally *Malayan*, in the adopted *Arabic* character (with certain judicious modifications) want the same token of their origin, and are more assimilated with the rest of the language.

In this short list of words taken, with little pains in the selection, from a *Malayan* dictionary, the departure from the *Hindooes* is scarcely more than may arise from a different habit of spelling them in our letters, unless where it consists in a slight variation of the sense, or of the part of speech.

<i>Sooka</i>	Fond, pleased	<i>Beejee</i>	Seed
<i>Sooka ihetu</i>	Pleasure, joy.	<i>Boodee</i>	Wisdom, understanding.
<i>Dooka</i>	Sad	<i>Loba</i>	Covetous
<i>Bagee</i>	To divide	<i>Juga</i>	To watch
<i>Bangsa</i> ,	Race, family	<i>Pootree</i>	Princess
<i>Basa.</i>	Language.	<i>Rata</i>	Chariot.
<i>Bechara</i>	Advice, counsel, judicial proceeding	<i>Pernama.</i>	Full moon.
		<i>Charee</i>	To seek

An inspection of the characters used by the natives of the islands, who have not adopted the *Malayan* or *Arabic* mode of writing, will shew that in the arrangement of their letters they have taken the *Hindu* for their guide, and have even preserved the rhythmus terminated by a *nasal*, which so peculiarly distinguishes this from every other system. The aspirated letters not being required for expressing the sounds of these languages, are omitted, and each division of the series consists therefore of three, instead of five. In the *Bengal* alphabet the order is as follows *Ka, ga, nga, Ta, da, na, Pa, ba, ma, Cha, ja, na*, &c (see *History of Sumatra*, plate.) In the *Sanskrit*, I need scarcely to observe, the series of consonants begins thus, *Ka, k'ha, ga, g'ha, nga, Cha, ch'ha, ja, j'ha, gnya, Te, t'ha, da, d'ha, na, &c*. If other proofs were wanting of the influence of *Hindu* intercourse in these parts, such conformity alone, in a matter so arbitrary, and which exists equally in other obscure dialects, and extends even to the island of *Celebes*, would be sufficient to establish it. The languages of these islanders have not, however, been enriched by an accession of *Hindu* words in any degree proportioned to the *Malayan*, which uses the *Arabic* alphabet, but the probability is strong, that the inhabitants of the *Malay* peninsula were in possession of an alphabet on the same model, and were even skilled in composition, before the *Mahometans* introduced their learning and character among them.

But the circumstance which has more immediately struck my attention, and given occasion to these remarks, is that of my having met with frequent allusions in their writings, to the most celebrated works of the *Hindu* mythological poets, especially the *Mahabharat* and the *Ramayen*. A manuscript now lying before me, which is a species of romance, exhibits in almost every page the marks of the author's acquaintance with *Hindu* literature and man-

ners. It contains the adventures of two princes, who were sent by the King, their father, to obtain for him the possession of an extraordinary self-performing instrument of music, whose enchanting air he had heard in a dream. However flimsy this foundation, and incoherent at the parts of its superstructure, it gives scope to the display of a lively and fertile imagination, much delicate imagery, and pathetic expression of sentiment. The following passages allude, unequivocally, to well-known personages in the *Poorans*. — *Terlaloos baek segale roopa'naa maha-mandak separatee pandoos leema*, and *guris* "surprising good was their whole appearance, most admirable, like unto the five Pandous" *Agaao Lakoo'naa meng-amok celoo separatee pandoos leema tatkala eca meng-amok dedalam rayet kooraao* گوراو، "the manner in which they fought was like that of the five Pandous when they rushed into the ranks of the K'zeroos". These can be no other than the renowned favourites of KRISHNA, whose brilliant actions and personal accomplishments are the theme of immortal song. The machinery of the *Ramayon* is interwoven with the story, and this circumstance tends to increase my regret that we possess no translation, even in abstract, of that much-admired poem. The Malayan princes are, like R.A.MA, attended in their wars by apes of extraordinary endowments, who fight with more than human prowess, and overcome the *Raksasa* چالان, or hobgoblins, who serve under the banners of the adversary. One of the former, whose talents as an ambassador are the subject of panegyric, is said to resemble that diplomatic monkey who was sent by Sree R.A.MA to the King of *Lankapooree*. The mixture of qualities and actions gravely attributed to them in their double capacity of monkeys and heroes, produces a very ludicrous and amusing effect. Though their ideas are rational, their manners and propensities are faithful to nature. Mention is also made of *Binoo dewa* یک گیومیں; of the mountain *Maha-moroo* گھنے لپرے, of the blue lotos حسن جو جو growing in the pool *Mandoo*

Mandoo raina ماندو رینا of a lion possessing supernatural powers, *Sing-asaktee*, and elsewhere *Sing-a-rayoon* ریجن، who shot arrows at *Mabaraya KARNA* کارنا Some of these latter names I do not recollect to have met with in the notices we have of the *Hindu* mythology

These similes and allusions must refer, as in all poetry, to stories with which the readers were presumed to be well acquainted, and seem to imply, that translations of the works were formerly in the hands of the *Malays*. I do not know that such remain amongst them at this day but my ignorance is no proof of the contrary; for at the time when I had opportunities of making the enquiry, I was unacquainted as to the existence of the originals, and the passages above quoted were of course unintelligible to me. They must be sought for in the peninsula of *Malacca*, or amongst the *Menangkabos* people in *Sumatra*. A spirit of investigation is now gone forth, and under the influence of the *Asiatic Society*, and from the example of its President, we may confidently hope that no region of oriental literature will be left unexplored.

Since the foregoing Paper was written, and communicated to a few friends, I have seen a copy of the third volume of the *Asiatic Researches* (just received from Calcutta) and observe that the connexion between the *Malayan* and the *Sanscrit* has not escaped the notice of the President, whose learned and elegant ANNIVERSARY DISCOURSE points it out (p. 11 & 12) in a clear and decided manner. The sanction of his authority to my opinion fully reconciles me to the anticipation of a supposed discovery.

IV.

A CATALOGUE OF INDIAN PLANTS,

COMPREHENDING THEIR SANSKRIT

AND AS MANY OF THEIR LINNÆAN GENERIC NAMES AS COULD WITH
ANY DEGREE OF PRECISION BE ASCERTAINEDBY THE LATE PRESIDENT

'A	CA'SABALLI, <i>Cassyta</i> .	Ancót'a
	Achyuta, <i>Morinda</i> .	Ansumati.
'Acránti, <i>Solomon</i> .	Anu, <i>Oryza</i> .	
Acsa.	Apamarga.	
5 Agastya, <i>Echynomene</i> .	25 Aparajita, <i>Chitoria</i> .	
Agnus'chá.	Arca, <i>Asclepias</i>	
Aguru, <i>Cordia</i> .	Ardraka, <i>Amomum</i> .	
Alábu, <i>Cucurbita</i> .	Arimeda.	
Alamvusha, <i>Bryonia</i> .	Arishtá, <i>Xanthium</i>	
10 Alarca, <i>Asclepias</i> .	30 Arjaca, <i>Ocytum</i>	
Alpamarsha.	Arjuna, <i>Lagerstroemia</i> ?	
Amalá.	Arushcara, <i>Semecarpus</i>	
'Amalaci, <i>Phyllanthus</i>	As'mantaca.	
Ambash'ha	As'oca, a new genus.	
25 Amálna, <i>Comphrena</i> ?	35 'Asp'hotá, <i>Nyctanthes</i> .	
Amhalómica, <i>Oxalis</i>	'Aus'vríhi, <i>Oryza</i>	
Amlavétasa, <i>Hypericum</i> .	Atavusha	
Amlicí, <i>Tamarindus</i> .	Atichári	
Amra, <i>Mangifera</i>	Atimucta, <i>Banisteria</i>	
zo Amrátaca, <i>Spondias</i> .	40 'Avigna, <i>Carissa</i> ?	
		Bacula,

Bacula, <i>Mimusops.</i>	Biranga.
Badiāl, <i>Rhamnus.</i>	70 Cacamachi.
Bahuvárača	Cicingi, <i>Aponogeton?</i>
Bahvanga, a new genus.	Cachu, <i>Arum.</i>
45 Bala *	Cadali, <i>Musa</i>
Bala.	Cadamba, <i>Nanclera</i>
Bandhúca, <i>Ivora.</i>	75 Cahíra, <i>Nymphaea</i>
Banga, <i>Cannabis?</i>	Cila.
Bau, <i>Ficus.</i>	Cili
50 Bhadramustaca, <i>Cyperus?</i>	Calambi.
Bhangā, <i>Gossypium.</i>	Calamī.
Bhanti, <i>Clerodendrum.</i>	80 Calaya, Calinga, <i>Cucurbita</i>
Bhavya, <i>Dillenia.</i>	Calpaca.
Bharadwájī,	Camelstí, <i>Ipomoea</i>
55 Bhuchampaca, <i>Kamferia.</i>	Cámpilla, a new genus.
Bhújambuca.	Canchana ra, <i>Bauhinia</i>
Bhulavanga, <i>Jussiaea</i>	85 Canda, <i>Dracontium</i>
Bhurandi, <i>Ipomoea?</i>	Candant'a.
Bhurja.	Candura, <i>Dolichos</i>
60 Bhústrina, <i>Andropogon?</i>	Canduru, <i>Scilla?</i>
Bhutavesi, <i>Nyctanthes.</i>	Canga.
Berberi.	90 Cantala, <i>Agave?</i>
Bimba, <i>Bryonia?</i>	Capila'.
74 Bimbica, the same?	Capit'ha, <i>Lemuria</i>
65 Brahmanis, <i>Oveda</i>	Caranja'ca, a new genus.
Brahmasuverchala'	95 Ca'ravélla, <i>Cleome?</i>
Brihmi, <i>Ruta.</i>	Ca'tavi, <i>Laurus,</i>
Bilva, <i>Crataeva.</i>	Caravira, <i>Nernum.</i>
	Caramaranga,

Carmaranga,	<i>Averrhoa</i>	Cirata.
Carnicara,	<i>Pavetta</i> .	Codava.
100 Carpanta,	<i>Aloe</i> ?	Corangi.
Carpasi,	<i>Gossypium</i>	Covida'ra, <i>Bauhinia</i>
Carpura,	<i>Laurus</i>	30 Chtaca *
Caruna,	<i>Citrus</i> .	Cramuca.
Cesa,	<i>Saccharum</i> .	Crishna.
5 Cáshmírd		Crishnachúra', <i>Ponciana</i>
Cá'ta'ca,	<i>Strychnos</i> .	Cshávi, <i>Asclepias</i> ?
Cátp'hala,	<i>Tabernamontana</i> .	35 Cshuma', <i>Lenum</i>
Catu		Culaca, <i>Strychnos</i> .
Cemuca.		Culma'ha.
10 Cesara,	<i>Crocus</i>	Cumbha.
Cetaca,	<i>Pandanus</i>	Cumbhica', <i>Pusha</i> .
Chacra,		40 Cumuda, <i>Momordica</i>
C'hadira,	<i>Mimosa</i>	(Cuncuma, <i>Crocus</i>)?
Ch'hatra'ca,	<i>Agaricus</i>	Cunda, <i>Jasminum</i> .
25 Champaca,	<i>Michelia</i>	Curubaca, <i>Barleria</i>
Chanaca.		Curuntaca.
Chanda'		45 Curuvaca
Chandana,	<i>Santalum</i>	Cusa, <i>Poa</i>
Chandrica'		Cushmánda, <i>Cucumeris</i> ?
20 Charyura,	<i>Phanox</i> .	Cusumbha, <i>Carthamus</i>
Charmacasha'		Cutaja, <i>Jasminum</i> .
Chavaca.		50 Cuvalaya
Chitra'		Cuvéraca, <i>Sweetenia</i> ?
Chitraca,	<i>Phumbago</i>	Dáma'spana
25 Chorapushbpi,	<i>Scripus</i>	Dantica.

Dhanya'ca

Dhanváca.	Gáyává, <i>Elephantopus</i> .
55 Darima, <i>Punica</i> .	Golóni, <i>Ageratum</i> ?
Dasi.	Gonarda, <i>Cyperus</i> ?
Devadáru, <i>Ulmus</i> .	85 Góraeshá.
Dhátací.	Geváchá.
Dhustúra, <i>Datura</i> .	Góvari, <i>Eremalcheum</i> ?
60 Dona, <i>Artemisia</i> .	Guggulu.
Dracabá, <i>Vitis</i> .	Guha.
Durgjata, <i>Ophioglossum</i> .	90 Gunja, <i>Abras</i> .
Durva, <i>Agrastis</i> .	Guraca, <i>Arctia</i> ,
Dwipati, <i>Impatiens</i> .	Hauvará,
65 Elá, <i>Anemone</i> .	Halaca, <i>Nymphaea</i> .
'Elabaluca.	Hanu
Eranda, <i>Brama</i> .	95 Haricusá, <i>Acanthus</i> .
Gajapappali, a new genus?	Hendrá, <i>Cucurbita</i>
Gambhará.	Hendru.
70 Gandali.	Hancaci, <i>Ternstroemia</i> .
Gandharva, <i>Gardenia</i> .	Hantala.
Gandura, <i>Solanum</i> ?	200 Haryanga, <i>Cissus</i> .
Gaurichandra, <i>Hedysarum</i> .	Hémapushpicá, <i>Jasminum</i> .
Ghantapatáli.	Hemass'gara, <i>Cotyledon</i> .
75 Ghomá, <i>Rhamnus</i> .	Hilamochicá.
Ghúshaca.	Hunavati.
Grant'hula.	5 Hingu, <i>Terribulus</i> .
Granjana, <i>Daucus</i> .	Hinguli, <i>Solanum</i> .
Gocastaca, <i>Boriera</i> .	Hinalá, <i>Elate</i>
80 Gódhapadi.	Holica.
Godhumá, <i>Trifolium</i> .	Jambira, <i>Citrus</i> .
	10 Jambu,

10	Jambu, <i>Eugenia</i>	Mahajáli
	Jatamánsi, <i>Valeriana</i>	Maháswéta
	Javá, <i>Terminalia</i> ?	40 Malapu
	Jayap'hala, <i>Myristica</i>	Malati, <i>Jasminum</i> .
	Jayanti, <i>Eschynomene</i>	Malicá, <i>Nyctanthes</i> .
15	Icahu, <i>Saccharum</i> .	Mánaca, <i>Arum</i> ?
	Icahura.	Mandara, <i>Erythrina</i>
	Icahwácu	45 Márcara.
	Jumúta.	Marcatu.
	Indivara, <i>Tradescantia</i> . *	Maricha, <i>Capsicum</i> .
20	Jiraca	Marunmálá
	Jivanti	Masaparní.
	Indraváruní	50 Máiha, <i>Phaseolus</i>
	Ingudi.	Mashandari, <i>Callicarpa</i>
	Irbaru	Masúra.
25	'Is waramula, <i>Aristolochia</i>	Mátulanga, <i>Citrus</i> .
	Lacucha, <i>Artocarpus</i> ?	Maurí
	Langali, <i>Nama</i> ?	55 Mayíra
	Latárca, <i>Allium</i>	Muchucunda, <i>Pentapetes</i>
	Lasuna, <i>Allium</i>	Mudga.
30	Lavali, <i>Avettia</i>	Mudgaparní
	Lavanga, <i>Caryophyllus</i>	Mulaca, <i>Raphanus</i> .
	Lodhta.	60 Mundaballi, <i>Ipomoea</i>
	Madans, <i>Pisoma</i>	Mura.
	Madhúca, <i>Bassia</i>	Murvá, <i>Alotris</i>
35	Madhulaca.	Mustaca, <i>Schemone</i> ?
	Madhuraca	Nágabeli, <i>Sida</i> .
	Madhusigru, <i>Guilandina</i> .	65 Nágaballi, <i>Bauhinia</i> .

Nagacésara, <i>Mesqa.</i>	Plascha, <i>Pithe.</i>
Nagadana, <i>Artemisia</i>	95 Prasmparka
Nágaranga, <i>Citrus</i>	Priyangu.
Nala, <i>Annona?</i>	Potica, <i>Physalis</i>
70 Nali:	Punamari, <i>Bombarium.</i>
Naranga.	Pundarica.
Náricela, <i>Gossq.</i>	300 Fundra.
Nichula, a new gesus.	Puticaraya, <i>Gulandina.</i>
Nili, <i>Indigofera</i>	Ractamula, <i>Olenlandia.</i>
75 Nilotpala, <i>Pouteria</i>	Rájadana.
Nimba, <i>Melia.</i>	Rajani
Nívara, <i>Oryza</i>	5 Rajica.
Pacala	Rashtricí
Padma, <i>Lymphaea.</i>	Rásna, <i>Ophiocylum?</i>
80 Palandu, <i>Allium</i>	Rénuca.
Palisa, <i>Butea.</i>	Ruddhi.
Panasa, <i>Artocarpus.</i>	10 Rishabha.
Parnasa, <i>Ocytum</i>	Rochana
Patala, <i>Egmontia</i>	Rohita, <i>Punica.</i>
85 Patóla, <i>Solanum?</i>	Sacotaca, <i>Trophis</i>
Paurí	Sahacara, <i>Mangifera.</i>
Pichula, <i>Tamarix</i>	15 Sahachari.
Pilu, <i>Aloe?</i>	Saileya, <i>Muscus.</i>
Pinyá.	Sauvaca, <i>Besleria.</i>
90 Pippala, <i>Ficus.</i>	Savala.
Pippali, <i>Piper</i>	'Sala.
Piyalz.	20 'Salanchi:
Pitasala.	'Salinal, <i>Bombax</i>
	Samanga'.

Sahadgi, 2?	50 'Sriparna,
'Sami, <i>Mimosa</i>	S'halapadi, <i>Hibiscus</i> .
Samira, <i>Mimosa</i> ,	Suca.
25 Samudraca, <i>Aquatica</i> .	Suci
Sana, <i>Crotalaria</i> .	Sumishannaca, <i>Marcilea</i>
Sancarajata, <i>Hedysarum</i>	55 Surabhi.
'Sanc'hapuspha, <i>Cork</i>	Suryamati, <i>Hibiscus</i>
'Sara.	Suverna, <i>Catua</i>
30 'Sarala.	'Sya'ma', a new genus
Saraná.	'Syarma ca
Satamuli:	60 Ta'la, <i>Borassus</i>
Satapushpa	Talamélica, <i>Cochlearia</i> ?
'Sar'hi	Talii, <i>Corypha</i> .
35 'Sep'hálica, <i>Nyctanthes</i> .	Tamala, <i>Laurus</i> ?
Septala, <i>Nyctanthes</i>	Taimbúli, <i>Piper</i> .
Septaparna, <i>Echites</i>	65 Tamracta, <i>Nicotiana</i> ,
Sershapa, <i>Simopus</i>	Taraca, <i>Anomum</i> ?
Simbí, <i>Dolichos</i>	Taruni, <i>Ale-</i> .
40 Sindhuci, <i>Vitis</i>	Tatpatri, <i>Laurus</i> ,
Sir sha, <i>Mimosa</i>	Tila, <i>Sesamum</i>
'Sisu, <i>Croton</i> ?	70 Tilaca.
Siva	Tinduca, <i>Diospyros</i>
Sobhanjana, <i>Gulandina</i>	Tinsa, <i>Ebenus</i> ?
45 Sómalata, <i>Ruta</i> ?	Trapusha, <i>Cucumis</i> ?
Somaraji, <i>Paeonia</i>	Trayama'na
Solp'ha	75 Trivrita'
'Sonaca, <i>Bignonia</i>	Tubarica'.
Sringataca, <i>Trapa</i>	Tula, <i>Morus</i>
	Tonga

Tunga.	Vastuca, <i>Amaranthus</i> ?
Udumbara, <i>Ficus</i> .	
80 Ulapa, <i>Ariëida</i> ?	400 Vasu
Upodica.	Vātaca
Urana, <i>Canna</i> .	Vāśadani, <i>Mengiferum</i> .
Utpala?	Vāyasoli.
Vayradru, <i>Euphorbia</i> .	Vētaea, <i>Berleria</i>
65 Valvaya, <i>Andropogon</i> ?	5 Vetrā, <i>Calamus</i> .
Vanaceli, <i>Canna</i> .	Vichura, <i>Tragis</i>
Vanamudga.	Vidari.
Vanardisaca, <i>Cofus</i> ?	Vidula
Vanda, <i>Epidendrum</i> .	Virana, <i>Andropogon</i> .
90 Vanda, <i>Loranthus</i> .	10 Vishanī
Vanda <i>Viscum</i> .	Vistaraca, <i>Cervulus</i> .
Vandaca, <i>Quercus</i> .	Vṛithi, <i>Oryza</i> .
Vans'a, <i>Bambos</i> .	Vyāghranac'ha.
Vārahī.	Vyāghrapada.
95 Vara'ngaca, <i>Laurus</i> .	15 Ya'sa.
Varuna.	Yava, <i>Hordium</i> .
Vasaca, <i>Dianthera</i> .	Yavasa, <i>Poa</i> ?
Vātalyā	Yuctā'rasa'
	Yut'hica, <i>Jasminum</i> .

XVII.

BOTANICAL OBSERVATIONS ON SELECT INDIAN PLANTS *

BY THE LATE PRESIDENT

'IF my names of plants displease you,' says the great Swedish botanist, 'choose others more agreeable to your taste,' and, by this candour, he has disarmed all the criticism, to which, as it must be allowed, even the critical parts of his admirable works lie continually open. I avail myself of his indulgence, and am very solicitous to give *Indian* plants their true *Indian* appellations, because I am fully persuaded that LINNÆUS himself would have adopted them, had he known the learned and ancient language of this country, as he, like all other men, would have retained the native names of *Asiatic* regions and cities, rivers and mountains, leaving friends, or persons of eminence, to preserve their own names by their own merit, and inventing new ones, from distinguishing marks and properties for such objects only as, being recently discovered, could have had no previous denomination. Far am I from doubting the great importance of perfect *botanical descriptions*, for languages expire as nations decay, and the true sense of many appellatives, in every dead language, must be lost in a course of ages but, as long as those appellatives remain understood, a travelling physician,

* This paper was announced in the specimen of an *Asiatic* Common-place Book, which the President added, in the third volume of these Transactions, to Mr HARRINGTON's proposal for an improvement of LOCKE's useful plan.

who-

who should wish to procure an *Arabian* or *Indian* plant, and, without asking for it by its learned or vulgar name, should hunt for it in the woods by its botanical character, would resemble a geographer, who, desiring to find his way in a foreign city or province, should never enquire, by name, for a street or a town, but wait with his tables and instruments, for a proper occasion to determine its longitude and latitude.

THE plants described in the following paper by their classical appellations, with their synonyms, or epithets, and their names in the vulgar dialects, have been selected for their novelty, beauty, poetical fame, reputed use in medicine, or supposed holiness, and frequent allusions to them all will be found, if the *Sanskrit* language should ever be generally studied, in the popular and sacred poems of the ancient *Hindus*, in their medical books and law-tracts, and even in the *Vedas* themselves. Though, unhappily I cannot profess, with the fortunate *sages*, to have seen without glasses all the parts of the flowers which I have described, yet you may be assured that I have intromitted no part of them which I have not again and again examined with my own eyes, and though the weakness of my sight will for ever prevent my becoming a botanist, yet I have in some little degree atoned for that fatal defect by extreme attention, and by an ardent zeal for the most lovely and fascinating branch of natural knowledge.

BEFORE I was acquainted with the method pursued by VAN RHEEDA, necessity had obliged me to follow a similar plan on a smaller scale, and, as his mode of studying botany, in a country and climate by no means favourable to botanical excursions, may be adopted more successfully by those who have more leisure than I shall ever enjoy, I present you with an interesting passage from one of his prefaces, to which I should barely have referred

you,

you, if his great work were not unfortunately confined, from its rarity, to very few hands. He informs us in an introduction to his third volume, " that several *Indus* physicians and *Brahmins* had composed by his order, a catalogue of the most celebrated plants, which they distributed according to their times of blossoming and seeding, to the configuration of their leaves, " and to the forms of their flowers and fruit, that, at the proper seasons he gave copies of the list to several intelligent men, of whom he sent parties into different forests, with instructions to bring him, from all quarters, such plants as they saw named, with their fruit, flowers, and leaves, even though they should be obliged to climb the most lofty trees for them, that three or four painters, who lived in his family, constantly and accurately delineated the fresh plants, of which, in his presence, a full description was added, that, in the mean while, he had earnestly requested all the princes and chiefs on the *Malabar* coast to send him such vegetables as were most distinguished for use or for elegance, and that not out of them failed to supply his garden with flowers, which he sometimes received from the distance of fifty or sixty leagues, that when his herbarists had collected a sufficient number of plants, when his draughtsmen had sketched their figures, and his native botanists had subjoined their description, he submitted the drawings to a little academy of *Pandits*, whom he used to convene for that purpose from different parts of the country, that his assembly often consisted of fifteen or sixteen learned natives, who vied with each other in giving correct answers to all his questions concerning the names and virtues of the principal vegetables, and that he wrote all their answers in his note-book, that he was infinitely delighted with the candid, modest, amicable, and respectful debates of those pagan philosophers, each of whom adduced passages from ancient books in support of his own opinion, but without any bitterness of contest or the least perturbation of mind,

" mind , that the texts which they cited, were in verse, and taken from
 " books, as they positively asserted, more than four thousand years old that
 " the first couplet of each section in those books comprised the synony-
 " mous terms for the plant, which was the subject of it ; and that, in the
 " subsequent verses, there was an ample account of its kind or species, its
 " properties, accidents, qualities, figure, parts, place of growth, time of flow-
 " ering and bearing fruit, medical virtues, and more general uses ; that they
 " quoted those texts by memory, having gotten them by heart in their earliest
 " youth, rather as a play than a study, according to the immemorial usage
 " of such *Indian* tribes as are destined by law to the learned professions,
 " and on that singular law of tribes, peculiar to the old *Egyptians* and *Indi-
 " ans*, he adds many solid and pertinent remarks " Now when we com-
 plain, and myself as much as any, that we have no leisure in *India* for liter-
 ary and philosophical pursuits, we should consider that VAN RHEDE was
 a nobleman, at the head of an *India* government, in his time very consi-
 derable, and that he fully discharged all the duties of his important station,
 while he found leisure to compile, in the manner just described, those twelve
 large volumes which LINNÆUS himself pronounces *accurate*.

T A B A C A

V I G T u r c

L I N N A M o n o m u m

C A L *Perrinii* spathe-like, but sitting on the germ ; tubular, one-leaved, broken at the mouth into few irregular sharp toothlets ; downy, striated, in part coloured, in part semipellucid.

C O R One petalled, villosus *Tube* short, funnel-form *Border* double *Exterior* three parted, coloured like the calyx ; *divisions* oblong, striated, internally concave, rounded into slipper-like bags ; the two *lower* divisions

equal, rather deflected, the higher somewhat longer, opposite, bent in a contrary direction, terminated with a long point. *Interior*, two-hipped (unless the upper-hip be called the filament), under-lip revolute, with a tooth on each side near the base, two-parted from the middle, divisions axe-form, irregularly end-nicked.

Nectaries, two or three honey-bearing, light brown, glossy bodies at the base of the under lip, just below the teeth, erect, awled, converging into a small cone.

Stam *Filament* (unless it be called the *upper lip* of the *interior border*) channelled within, sheathing the style, dilated above into the large fleshy *anther*, if it can justly be so named. *Anther* oblong, externally convex and entire, internally flat, divided by a deep furrow, each division marked with a perpendicular pollen-bearing line, and ending in a membranous point.

Pist *Germ* beneath, protuberant, roundish, obscurely three-sided, externally soft with down. *Style* thread form, long as the *filament*, the top of which nearly closes round it. *Sigma* headed, perforated.

Per *Capsule* (or *Capsular berry*, not bursting in a determinate mode) oblong-roundish, three-striped, smooth, crowned with the permanent calyx and corolla, with a brittle coat, almost black without, pearly within.

Seeds lopped, with three or four angles, very smooth, enclosed within three oblong, rounded, soft, membranous integuments, conjoined by a branched receptacle, in each parcel, four or five.

Interior Border of the corolla, pink and white, under lip internally milk-white, with a rich carmine-stripe in each of its divisions. *Seeds* aromatic, hotter than *Curdamomus*. *Leaves* alternate, sheathing, oblong, pointed, keeled, most entire, margined, bright grass green above, very smooth, pale sea-green below. *Stem* compressed, three or four feet long, bright pink.

near its base, erect, ending in a beautiful panicle. *Peduncles* many flowered, *bracts* few, lance-linear, very long, withering. *Root* fibrous, with two or three bulbous knobs, light brown and spongy within, faintly aromatic.

ALTHOUGH the *Tarara* has properties of an *Amomum*, and appears to be one of those plants which RUMPHIUS names *Globba*, yet it has the air of a *LANGUAS*, the fruit, I believe, of a *RENTALMIA*, and no exact correspondence with any of the genera so elaborately described by KORNIG. Its essential character, according to RETZ, would consist in its two-parted interior border, its channelled filament, and its two cleft anther with pointed divisions.

2 BRUC'CHAMPACA

Vulg. *Bh'champas*

Linn. Round-rooted *KAMPFERIA*

CAL Common Sparke imbricated, many flowered, partial, *Petianish* one-leaved, small, thin, obscure.

COR One petalled. *Tube* very long, slender, sub-cylindric below, funnel-form above, somewhat incurved. *Border* double, each three parted, *exterior*, divisions lanceolate, acute, dropping, *interior*, two higher divisions erect, lapping over, oblong, pointed, supporting the back of the anther, *lower* division expanding, deflected, two cleft, *subdivisions* broad, axe-form, irregularly notched, end sickled, with a point.

STAM *Filament* adhering to the throat of the corol, oblong below, enlarged, and two lobed above, coloured. *Anther* double, linear, higher than the mouth of the tube, fixed on the lower part of the filament, conjoined round the pistol, fronting the two-cleft division of the border.

PIST *Germ* very low near the root, attired with a *nastaceous* gland. *Style* capillary, very long. *Stigma* funnel-form below, compressed above, *fun-*

fan-shaped, two-lipped, downy, emerging a little from the conjoined anther

PER and SEEDS not yet seen

Scape thickish, very short *Coroll* richly fragrant, *tube* and *exerior border* milk white, divisions dropping, as if sensitive, on the slightest touch, and soon yielding to the pressure of the air, *interior border* purple, the higher divisions diluted, the lower deeply coloured within, variegated near the base One or two flowers blow every morning in *April* or *May*, and wither entirely before sun-set after the *spike* is exhausted, rise the large leaves keeled, broad lanced, membranous nerved *Root* with many roundish, or rather spindle-shaped *bulbs*

This plant is clearly the *Benha'po* of RHEEDE, whose native assistant had written *Bhu* on the drawing, and intended to follow it with *Champa* the spicy odour and elegance of the flowers, induced me to place this KEMPFELIA (though generally known) in a series of select Indian plants, but the name *Ground CHAMPAC* is very improper, since the true *Champaea* belongs to a different order and class, nor is there any resemblance between the two flowers, except that both have a rich aromatic scent

AMONG all the *natural orders*, there is none in which the genera seem less precisely ascertained by clear *essential characters*, than in that which (for want of a better denomination) has been called *scitamineous*, and the judicious RETZ, after confessing himself rather dissatisfied with his own generic arrangement, which he takes from the *border* of the coroll, from the *stamen*, and principally from the *anther*, declares his fixed opinion, that the genera in this order will never be determined with absolute certainty until all the *scitamineous plants of India shall be perfectly described.*

3 SEP'HALICA'

SYN *Suvaha*, *Nirgudi*, *Nilea*, *Nirudica*VULG *Singahar*, *Nibari*

LINN Sorrowful NYCTANTHES.

In all the plants of this species examined by me, the *calyx* was villous, the *border* of the corol white, five-parted, each division unequally subdivided, and the *tube* of a dark orange-colour, the *stamens* and *pistil* entirely within the *tube* the *berries* twin, compressed, capsular, two-celled, margined, inverse-hearted, with a point. This gay tree (for nothing sorrowful appears in its nature) spreads its rich odour to a considerable distance every evening, but at sun rise it sheds most of its night flowers, which are collected with care for the use of perfumers and dyers. My Pandits unanimously assure me, that the plant before us is their *Sep'halica*, thus named because bees are supposed to sleep on its blossoms, but *Nilea* must imply a blue colour, and our travellers insist that the Indians give the names of *Paryatica* or *Paryata* to this useful species of *Nyctanthes*. On the other hand, I know that *Paryata* is a name given to flowers of a genus totally different, and there may be a variety of this with bluish corols, for it is expressly declared, in the *Anurcooh*, that, "when the *Sep'halica* has white flowers, it is named *Scutaturasat*, and *Bhutavest*."

4 MAGHYA

SIN *Cunda*LINN *Nyctanthes Sambu*

See RHEEDY 6 H M tab 54

Flowers exquisitely white, but with little or no fragrance, *stem*, *petioles*, and *calyx* very downy, *leaves* egged, acute, below rather hearted.

SEPTALA .

5 SEPTALA

SYN. *Navamallica*, *Navamalica*

VULG. *Bela*, *Muta bela*

BURM. *Many-flowered Nyctanthes*

See 5 RUMPH tab 30 6 H M tab 50

THE blossoms of this variety are extremely fragrant *Zambak* (so the word should be written) is a flower to which *Persian* and *Arabian* poets frequently allude.

5 MALLICA

SYN. *Tmasula*, *Malli*, *Blupadi*, *Sasabhu*.

VULG. *Dess-bela*

LINN. *Wavy-leaved Nyctanthes*.

Berry globular, simple, one-celled *Sand* large, single, globular.

ACCORDING to RHEEDA, the *Brahmins* in the west of India distinguish this flower by the word *Casturi*, or *musk*, on account of its very rich odour.

6 'ASP'HOTA

SYN. *Kanamalli*

VULG. *Banmallica*.

LINN. *Narrow-leaved Nyctanthes*

THE Indians consider this as a variety of the former species, and the flowers are nearly alike. *Obtuse leaved* would have been a better specific name, the petals, indeed, are comparatively narrow, but not the leaves. This charming flower grows wild in the forests, whence it was called *Vanayats* by

by the *Brahmenses*, who assisted RHEEDE, but the *Jātī*, or *Malati*, belongs, I believe, to the next genus

7 MA'LATI.

SYN. *Sumanā'*, *Ja'tī*.

VULG. *Malati*, *Jātī*, *Chambe'ū*.

LINN. Great-flowered JASMIN.

Buds blushing, *corollas*, mostly with purplish edges. *Leaves* feathered with an odd one, two or three of the terminal *leaflets* generally confluent.

Though *Malati* and *Jātī* be synonymous, yet some of the native gardeners distinguish them, and it is the *Jātī* only that I have examined. COMMELINE had been informed that the *Javanes* give the name of *Malets* to the *Zambak*, which in *Sanscrit* is called *Neemallicat*, and which, according to RHEEDE, is used by the *Hindus* in their sacrifices, but they make offerings of most odorous flowers, and particularly of the various *Jasmins* and *Zambaks*.

8 YUT'HICA

SYN. *Mugadhi*, *Ganca'*, *Ambasht'ha*, *Yut'hī*.

VULG. *Jāthī*, *Jai*.

LINN. Anorick JASMIN

Leaves opposite, three'd Branchlets cross-armed Umbels three-flowered. *Corollas* white, very fragrant. The yellow *Yut'hīca*, say the *Hindus*, is called *Hemapuspica*, or golden-flowered; but I have never seen it; and it may be of a different species.

g. AMALICA'

9 AMERICA'

SYN *Tamarindus*, *Guncha*Vulg. *Tamarind*, *Tamarihind*, or *Indian Date*.Linn *Tamarindus*.

The flowers of the *Tamarind* are so exquisitely beautiful, the fruit so salubrious when an acid sherbet is required, the leaves so elegantly formed and arranged, and the whole tree so magnificent, that I could not refrain from giving a place in this series to a plant already well known. In all the flowers, however, that I have examined, the coalition of the stamens appeared so invariably, that the *Tamarind* should be removed, I think, to the sixteenth class, and it were to be wished that so barbarous a word as *Tamarindus*, corrupted from an Arabic phrase absurd in itself, since the plant has no sort of resemblance to a date-tree, could, without inconvenience, be rejected, and its genuine Indian appellation admitted in its room.

10 SARA or Arrow-cane

SYN *Gundro*, or playful, *Tajanaca*, or AcuteVulg *Ser*, *Serhei*:Linn *Spontaneous Saccharum*

CAL Gluma two-valved, valves oblong-lanceolate, pointed, sub-equal, grit with silky diverging hairs, exquisitely soft and delicate, more than twice as long as the flower

COR One valved, acute, fringed

SRAM Filaments three, capillary, Anthers oblong, incumbent

PIST Gens very minute, styles two, thread-form. Stigmas feathery

FLOWERS

FLOWERS on a very large terminal panicle, more than two feet long, in the plant before me, and one foot across in the broadest part, consisting of numerous compound spikelets, divided into spikelets, each on a capillary jointed rachis, at the joints of which are the flowerets alternately sessile and pedicelled. Common pedicels many-furrowed, with reddish joints. Flowers of the corolla purple, or light red, stamens and pistils ruddy, stigmas purple, pedicels of a reddish tinge, finely contrasted with the long silvery beard of the calyx. Leaves very long, striated, minutely sawed, teeth upwards, keel smooth, white within, sheathing the culm, the mouths of the sheaths thick, set with white hairs. Culm above twenty feet high, very smooth, round, and light, more closely jointed and woody near the root, which is thick and fibrous. It grows in large clumps, like the *Venoo*. This beautiful and superb grass is highly celebrated in the *Purasas*, the Indian God of War having been born in a grove of it, which burst into a flame, and the gods gave notice of his birth to the nymph of the *Phaedra*, who descended and suckled the child, thence named *Catherja*. The *Sara*, vulgarly *Casin*, has a shorter culm, leaves much narrower, longer, and thicker hairs, but a smaller panicle, less compounded, without the purplish tints of the *Sara*. It is often described, with praise, by the Hindu poets for the whiteness of its blossoms, which give a large plain, at some distance, the appearance of a broad river. Both plants are extremely useful to the Indians, who larden the inter-nodal parts of the culms, and cut them into implements for writing on their polished paper. From the *huaya*, or culm, of the *Sara* was made the *marmya*, or hol^t thread, ordained by *M^ani* to form the sacerdotal girdle, in preference even to the *Lusa*-grass.

i DR RVA

Syn. *Sataparvada*, *Sahasiarjya*, *Bhurgrat*, *Rudi*, *Ananta*.

V 1 C

VULO Dib.

KORN AGROSTIS LANCEARIS.

NOTHING essential can be added to the mere botanical description of this most beautiful grass, which VAN RHEEDER has exhibited in a coarse delineation of its leaves only, under the barbarous appellation of *Bell-carage*. Its flowers, in their perfect state, are among the loveliest objects in the vegetable world, and appear, through a lens, like minute rubies and emeralds in constant motion from the least breath of air. It is the sweetest and most nutritious pasture for cattle, and its usefulness, added to its beauty, induced the *Hindus*, in their earliest ages, to believe that it was the mansion of a benevolent nymph. Even the *Yeda* celebrates it, as in the following text of the *Atharvana* "May Dhruva, which rose from the water of life, " which has a hundred roots and a hundred stems, efface a hundred of " my sins, and prolong my existence on earth for a hundred years!" The plate was engraved from a drawing in Dr ROXBURGH's valuable collection of Indian grasses.

12 *Cus'a*, or *Cus'ha*

SIN Cufha, Darbha, Pavitra

VULO Cusha

KORN Poa Cynosuroides

HAVING never seen this most celebrated grass in a state of perfect inflorescence, I class it according to the information which Dr ROXBURGH has been so kind as to send me. The *leaves* are very long, with margins acutely sawed downwards, but smooth on other parts, even on the keels, and with long points, of which the extreme acuteness was proverbial among the

old *Hindus*. Every law book, and almost every poem in *Sanscrit*, contains frequent allusions to the holiness of this plant, and, in the fourth *Veda* we have the following address to it at the close of a terrible incantation "Thee,
 " O *Darbha*, the learned proclaim a divinity not subject to age or death,
 " thee they call the armour of *In-dra*, the preserver of regions, the destroyer
 " of enemies, a gem that gives increase to the field At the time when the
 " ocean resounded, when the clouds murmured, and lightnings flashed,
 " then was *Darbha* produced, pure as a drop of fine gold" Some of the
 leaves taper to a most acute, evanescent point; whence the *Pandits* often
 say of a very sharp minded man, that his intellects are *acute as the point of a*
Cusa-leaf.

13 *BANDHUCIA*SYN. *Ractaca*, *Bandhucrossa*.VULG. *Bandhutis*, *Rangau*.

LINK Scarlet Ixora

CAL. *Perianth* four-parted, permanent, *divisions* coloured, erect, acuteCOR. One-petaled, funnel-form *Tube* cylindric, very long, slender,
 somewhat curved *Border* four-parted, *divisions* egged, acute, de-
 flexedSTAM. *Filaments* four, above the throat very short, incurved *Anthers*
 oblong, depressedPIST. *Germ* roundish, oblate beneath *Style* thread-form, long as the tube.
Sigma two-cleft, just above the throat, *divisions* externally curved

PER.

SEEDS

Flowers bright crimson-scarlet, umbel-fascicled *Leaves* oval, cross paired,
 half stem-clasping, pointed, pale below, dark green above, leathery, cloth-
 ing

ing the whole plant *Stipules* between the opposite leaves erect, linear
Stem russet, channelled

THE *Bandha*-flower is often mentioned by the best Indian poets, but the Pandits are strangely divided in opinion concerning the plant which the ancients knew by that name RADHACĀRT brought me, as the famed *Bandha*, some flowers of the *Doubtful PAPAVER*, and his younger brother RĀMA'CĀNT produced on the following day the Scarlet Ixorā, with a beautiful couplet, in which it is named *Bandha*. Soon after, SERVO RU showed me a book, in which it is said to have the vulgar name *Dop'hariya*, or *Miridian*, but by that *Hindustani* name the Musselmans in some districts mean the Scarlet Pentapetes, and, in others, the Scarlet Hibiscus, which the Hindus call *Sayamani*, or *Gem of the Sun*. The last mentioned plant is the *Siasmū* of RHEEDE, which LINNAEUS, through mere inadvertence, has confounded with the Scarlet Pentapetes, described in the fifty-sixth plate of the same volume. I cannot refrain from adding, that no Indian god was ever named *Ixorā*, and that *Isvara*, which is indeed a title of SIVĀ, would be a very improper appellation of a plant which has already a classical name.

14 CARNICARA

SIN. *Drumo ipala*, *Periya dha*
VULG *Cinera*', *Cat'havhampa*
LINN. *Indian PAVETTA*

IT IS wonderful that the Pandits of this province, both priests and physicians, are unable to bring me the flower which CA LIDA'SA mentions by the name of *Carnicara*, and celebrates as a *flame of the woods*. The lovely

Poovita, which botanists have sufficiently described, is called by the Bengal peasants *Cáncrá*, which I should conclude to be a corruption of the Sanscrit word, if a comment on the *Amaracosh* had not exhibited the vulgar name *Cal'ha-champé*, which raises a doubt, and almost induces me to believe that the *Carnica* is one of the many flowers which the natives of this country unproperly called wild *Champas*.

15 MA'SHANDARI,

VULG. *Masandar* in *Bengal*, and *Bastr* in *Hondurán*.

LINN. *American Callicarpus*, yet a native of *Java*?

CAL. *Poranthe* one-leaved, four-parted, *Divisum* pointed, erect.

COR. One-petaled, funnel-form, border four cleft.

STAM. Filaments four, thread-form, coloured, longer than the coroll. Anthers roundish, incumbent.

PIST. Germ above, egged. Style thread-form, coloured, longer than the stamens. Stigma thickish, gaping.

PER.

SEEDS

Flowers minute, bright lilac, or light purple, extremely beautiful. Panicles axillary, one to each leaf, two-forked, very short in comparison of the leaves, downy. Bracts awled, opposite, placed at each fork of the panicle. Leaves opposite, petioled, very long, egged, veined, pointed, obliquely notched at the base, bright green and soft above, pale and downy beneath. Branches and petioles hoary with down. Shrub, with flexible branches; growing wild near *Calculta*, its root has medicinal virtues, and cure, they say, a cutaneous disorder called *mishá*, whence the plant has its name. Though the leaves be not sawed, yet I dare not pronounce the species to be new. See a note on the *Heavy Callicarpus*, 3 RITZ. FUSCA. p. 1 n. 29



16. SKRICA TA.

SIN Sing uaca

VIRG Singhura

LIMA Floating TRAPA

I can add nothing to what has been written on this remarkable water-plant, but as the ancient Hindus were so fond of its nut (from the berries of which they gave a name to the plant itself) that they placed it among their sun constellations, it may certainly claim a place in a series of Indian vegetables.

17. CILINDRA.

SIN Gondhvara, Malay u, Bhastras

VIRG Chetan, Rhatat, Sandee

LIMA Truc Samulam, more properly Sareem,

SIN large, globular, smooth

Having received from Colonel P. L. LAYTON many seeds of this extraordinary plant which he had found in the thickets of Madras, I had a sanguine hope of being able to describe its flowers, of which RUMPHIUS could procure no account in^{the} concern^{ing} which there is a singular difference between LINNAEUS and BERGERA the younger, though they both cite the same authors and each refers to the work of the other, but the seeds have never germinated in my garden, and the Chetan only occupies a place in the present series from the deserved celebrity of its fragrant wood, and the perpetual mention of it in the most ancient books of the Hindus, who constantly describe the use of it as floating on the mountains in the Malabar. An

elegant Sanscrit stanza, of which the following *Versio*n is literally exact, alludes to the popular belief, that the *Venus*, or *Bambu*, as they are vulgarly called, often take fire by the violence of their collision, and is addressed, under the allegory of a sandal-tree, to a virtuous man dwelling in a town inhabited by contending factions " Delight of the world, beloved CHAK-
" DAKA, stay no longer in this forest, which is overspread with rigid per-
" nicious Van'as, whose hearts are unsound, and who, being themselves
" confounded in the scorching stream of flames kindled by their mutual at-
" trition, will consume not their own families merely, but this whole wood "
The original word *Dwvans* has a double sense, meaning both a dangerous
bambu, and a man with a mischievous offspring Three other species, or
varieties of *Chandan*, are mentioned in the *Amaraco'sha*, by the names *Tulsi-*
garura, *Go's'nsa*, and *Ilerishandana* the red sandal (of which I can give
no description) is named *Cuchandana* from its inferior quality, *Rangana* and
Racta from its colour, and *Tilaparia*, or *Putranga*, from the form of its
leaves.

18 CUMUDA.

SYN *Castrava*VULG *Gham-chv*RHEEDE *Tyeroea Cit Ambel* 11 H M t 29.LINN *MELIANTHES'*CAL Five-parted, longer than the tube of the corol, expanding, permanent, *divisions* awl'dCOR One-petaled *Tube*, rather bell'd, *border* five-parted, *divisions* oblong, wavy on the margin a longitudinal wing or foldlet in the middle of each. The mouth and whole interior part of the corol shaggy

STAM

STAM *Filaments* five, awled, erect, *Anthers* twin, converging, five, alternate, shorter, stenl

PEST *Germ* egged, very large in proportion, gut at its base with five roundish glands *Style* very short, if any *Stigma* headed

PER *Capsule* four-celled, many-seeded

SEEDS round, compressed, minute, appearing rough, with small dots or points.

LEAVES hearted, subtargeted, bright green on one side, dark russet on the other *Flowers* umbel fascicled, placed on the stem, just below the leaf, *Glands* and *Tube* of the corol yellow, *border* white, both of the most exquisite texture *Cumuda*, or Delight of the Water, seems a general name for beauiful aquatic flowers, and among them, according to VAN RHEEDE, for the *Indian Menianthes*, which this in part resembles The *druissons* of the corol may be called *three-winged* they look as if covered with silver frost.

19 CHITRACA

SYN *Push'n Vahn*, and all other names of Fire

VULG *Chita*, *Chuti*, *Chitra*

LINN *PILMBAGO* of *Silén*

CAL *Perianth* one-leaved, egg-oblong, tubular, five sided, rugged, interspersed with minute pedicelled glands, exuding transparent glutinous droplets, erect, closely embracig the tube of the corol, *mouth* five-toothed, *base* protuberant with the valves of the nectary

COA one-petaled, funnel form *Tube* five angled, rather incurved, longer than the calyx *Border* five-parted, expanding *Druissons* inverse, egg-oblong, pointed, somewhat keeled

Nectary five-valved, pointed, minute, including the germ

STAM. *Filaments* five, thread-form, inserted on the valvelets of the nectary as long as the tube of the corol. *Anthers* oblong, oblique.

PIST. *Germ* egged, very small; at first, when cleared of the nectary, smooth, but assuming as it swells, five angles. *Style* columnar, as long as the stamens. *Stigma* five-parted, slender

PER none, unless we give that name to the five-angled coat of the seed
SARD one, oblong, obscurely five-sided, inclosed in a coat

Racemos viscid leafy. *Calyx* light green. *Corol* milk-white. *Anthers* purple, seen through the pellucid tube. *Leaves* alternate, egged, smooth, pointed, half sheathing, partly waved, partly entire, *floral-leaves* similar, minute. *Stem* flexible (climbing) many-angled, jointed at the base of the leaves. *Root* caustic, whence the name *Vahns*, and the like. *Chitrata* means attracting the mind, and any of the Indian names would be preferable to *Plumbago*, or *Leadwort*. The species here described, seems most to resemble that of *Delan*, the *rosy Plumbago* is less common here the joints of its stems are red, the bracts three'd, egged, equal pointed, coloured

20 CA'MALATI

SIX *Surya-cantis* or *Sunshine*, II H. M. 1. 60.

VULG *Cam lati*, *Ishk-pichah*.

LINN *IPOMOEA Quamocchi*.

THE plant before us is the most beautiful of its order, both in the colour and form of its leaves and flowers, its elegant blossoms are celestial rosy red, love's proper hue, and have justly procured it the name of *Camalati*, or *Love's Creeper*, from which I should have thought *Quamocchi* a corruption, if there were

were not some reason to suppose it an *American* word. *Cāmalatd* may also mean a mythological plant, by which all *desires* are granted to such as inhabit the heaven of *INDRA*, and if ever flower was *worthy* of *paradise*, it is our charming *Ipomoea*. Many species of this genus, and of its near ally the *Convolvulus*, grow wild in our *Indian* provinces, some spreading a purple light over the hedges, some snow white with a delicate fragrance, and one breathing, after sunset, the odour of cloves, but the two genera are so blended by playful nature, that very frequently they are undistinguishable, by the *corollas* and *stigmas* for instance, the *Mundovalli*, or *Beautiful Climber*, of RHEEDE (of which I have often watched the large spiral-buds, and seen them burst into full bloom) is called *Ipomoea* by LINNÆUS, and *Convolvulus* (according to the Supplement) by KERNIC, and it seems a shade between both. The divisions of the *perianth* are egg-oblong, pointed, free above, intricated below, its *corolla* and *stigmae* those of an *Ipomoea*, its *filaments* of different lengths, with *anthers* arrowed, jointed above the barbs, furrowed half-incumbent, the *stigmas*, two globular heads, each globe an aggregate of minute roundish tubercles, the *stem* not quite smooth, but here and there bearing a few small prickles, the very large *corolla* exquisitely white, with greenish rips, that seem to act as muscles in expanding the contorted bud, its *odour* in the evening very agreeable, less strong than the primrose, and less faint than the lily. The clove-scented creeper, which blows in my garden at a season and hour when I cannot examine it accurately, seems of the same genus, if not of the same species, with the *Mundovalli*.

27 CADAMBA

SYN *Nepa*, *Priyaca*, *Hakipriya*VULG *Cadambe*, *Cadam*LINN *Oriental Nauclæa*.

To the botanical description of this plant I can add nothing, except that I always observed a minute five-parted *calyx* to each floret, and that the leaves are oblong, acute, opposite, and transversely nerved. It is one of the most elegant among Indian trees, in the opinion of all who have seen it, and one of the holiest among them in the opinion of the Hindus. The Poet CA'LIDA's alludes to it by the name of *Nipa*, and it may justly be celebrated among the beauties of summer, when the multitude of aggregate flowers, each consisting of a *common receptacle*, perfectly globular, and covered uniformly with gold-coloured florets, from which the white thread-form styles conspicuously emerge, exhibits a rich and singular appearance on the branchy trees decked with foliage charmingly verdant. The flowers have an odour, very agreeable in the open air, which the ancient Indians compared to the scent of new wine, and hence they call the plant *Halypriya*, or *beloved by HALIN*, that is, by the third RA'MA, who was evidently the BACCHUS of India.

22 GANO'RA

SYN *Samashti hila*, *Lacuna-bhanisaca*

VULG *Lina bhant*, *Ins*, *Salatza*

LIN SOLANUM Is it the *Verbascum-leaved*?

CAS *Perianth* one-leaved, cup-form, or bellied, obscurely five-cleft, downy, pale, frosted, permanent. *Ditussions* egged, erect, pointed, very villous

COR One-petaled *Tube* very short *Border* five-parted *Ditussions* oblong, pointed, expanding, villous

STAM *Filaments* five, most short in the mouth of the tube. *Anthers* oblong, furrowed, converging, nearly coalescent, with two large pores gaping above.

PIST *Germ* roundish, villous *Style* thread-form, much longer than the stamens *Sigmae* obtuse-headed
PER *Berry* roundish, dotted above, hoary, divided into cells by a fleshy *receptacle*, with two or three wings
SEEDS very many, roundish, compressed nestling
LEAVES alternate, egg-oblong, pointed, rather wavy on the margin, delicately fringed with down, darker and very soft above, paler below, with protuberant veins, downy on both sides, mostly decurrent on the long hoary petioles
STEM shrubby, scabrous with tubercles, unarmed
Flowers umbel-fascicled *Corolla* white *Anthers* yellow *Peduncles* and *pedicels* hoary with deciduous frost

This plant is believed to contain a quantity of *levana*, or salt, which makes it useful as a manure, but the single word *Bhantua*, vulgarly *Bhant*, means the *Clerodendrum*, which (without being *unfortunate*) beautifies our Indian fields and hedges with its very black *berry* in the center of a bright red expanding permanent calyx. The charming little bird *Chatrua*, commonly called *Chattarya*, or *Tunituru*, forms its wonderful nest with a leaf of this downy *Solanum*, which it sews with the silk-cotton of the Seven-leaved *BOMBAX*, by the help of its delicate but sharp bill. That lovely bird is well known by the *Linnæan* appellation of *MOTACILLA Sartoria*, properly *Sartrix*, but the figures of it that have been published, give no idea of its engaging and exquisite beauty.

23 SAMUDRACA

SYN *Dh.la sanudra*

VULG *Dhal-samudr*

Linn Aquilus, but a new species

CIL Petal one-leaved, funnel-shaped, five-toothed, short, the *teeth* closely pressing the *corolla*, permanent

COR Petals five, egg-oblong, sessile, greenish, acute, curved inwards, with a small angled concave appendage. *Nectary* tubular, fleshy, five parted, yellowish, *drusimis*, egg-oblong, doubled, compressed like minute bags with inverted mouths, enclosing the germ

STAMI Filaments fine, smooth and convex externally, bent into the top of the *nectary*, between the divisions or *scales*, and compressing it into a globular figure. *Ab* barbed, the points hidden within the *nectary*, surrounding the *stamens*, the barbs without, in the form of a star.

PIST *Cap* roundish *style* cylindrical. *Sigma* obtuse

PLR *Berry* roundish, flattened, navelled, longitudinally furrowed, mostly five-celled

SEEDS solitary, three-sided, externally convex *Gymnos* mostly three-parted *diaphragm* deeply channelled, jointed, two-forked. *Peduncles* also jointed and channelled. *Fructification* bursting laterally, where the stem scuds forth a peacock. *Berries* black, watery. *Leaves* alternate, except one terminal pair, hearted, pointed, toothed, twelve or fourteen of the teeth shooting into lobes, above, dark green, below, pale, ribbed with processes from the petiole, and reticulated with protuberant veins, the full-grown leaves above two feet long from the apex, and nearly as broad toward the base, many of them rather targetted. This new species may be called *large-leaved*, or *AQUILIA Samudraca*. The species described by the younger BURMAN, under the name of the *Indian STAPHYLIA*, is not uncommon at *Crishna nagar*, where the peasants call it *Cucjangha*, or *Cron's foot* if they are correct, we have erroneously supposed the *Cuong* of the modern Bengalese to be the *Chango* of the ancient *Hindus*. It must not be omitted,

ted, that the stem of the *Aquilegia Sambica* is also channelled, but that its *fructification* differs in many respects from the descriptions of BURMAN and LINNÆUS, though there can be no doubt as to the identity of the genus.

24. SO'MAKA'JI

Syv *Avalanya, Subali, Somaballud, Odametha, Krishnaphala Vacuchi, Paganji, Pimp'halli*

Vulg *Somaj, Bacuchi*

LINN *Fetid Pædaria*

THE character as in LINNÆUS, with a few variations. *Calyx* incurved, *Coral* very shaggy within. *Style* two-cleft, pubescent, divisions contorted. *Stem* climbing, smooth. *Leaves* opposite, long-petioled, the lower ones oblong, hearted, the higher, egg-oblong, veined, with a wavy margin. *Panicles* axillary (except the highest) cross armed. *Flowers* beautiful to the sight, crimson, with milk-white edges, resembling the *Dianthus*, vulgarly called *Sweet William*, but resembling it only in form and colours, almost scentless to those who are very near it, but diffusing to a distance a rank odour of carrion. All the peasants at *Crishna-nagar* called this plant *Somraj*, but my own servants, and a family of *Brahmnens* from *Trisbeni*, gave that name to a very different plant of the *nineteenth* class, which I took, on a cursory inspection, for a *Prenanthes*.

25. SYA'MA'

Syv *Gopi, Sa'riva, Ananta, Upalura'travā, Go'pa, Gopaka, Go'parai*

Vulg *Sjama' lata*

RHEEDE, in Malabar letters, *Puppal-valli*

CAL *P*erianth one-leaved, five-toothed, erect, minute, permanent.

COR One-petaled, salver-form *Tube* itself cylindric, but protuberant in the middle with the germ and anthers; *throat* very vilous. *Border* five-parted, *divisions* very long, lance-linear, spirally contorted, fringed, closed, concealing the fructification

STAM. *Filaments*, if any, very short *Anthers*, five, awled, erect, converging at the top

PIST *G*erm above, pedicelled, spheroidal, girt with a *nectarous* ring *Style* thread-form, rather awled *Stigma* simple

PLR *Capsule* one celled, one-seeded, roundish, hispid.

SEED oval, very minute, glossy

Flowers raceme-pedicled, greenish-white, very small, scented like those of the hawthorn, but far sweeter, and thence the Portuguese called them *honey-flowers*.

Peduncles axillary, russet, *pedicels* many-flowered. *Branchlets* milky. *Leaves* opposite, lance-oval, pointed at both ends, most entire veined, above, dark green; below, pale *Spatules* linear, axillary, adhering. *Stem* climbing round, of a russet hue, rammed at the insertion of the short *petioles*.

THE ripe fruit of this elegant climber, which CA'LLIDA's mentions in his poem of the *Seasons*, has been seen by me only in a very dry state, but it seemed that the hispid appearance of the capsules, or *berries*, which to a microscope looked exactly like the burs in VAN RHEFDE's engraving, was caused by the hardened calyxes and fringe of the permanent corols, the seeds in each burr were numerous, and like black-shining sand, for no single pericarp could be disengaged from it, and it is described as *one-seeded* merely from an inspection of the dissected germ. Before I had seen the fruit, I thought

thought the *Syam* very nearly connected with the *Shrubby APOCYNUM*, which it resembles in the leaves, and in parts of the corol

FIVE of the SANSKRIT names are strung together, by the author of the *Amerachik*, in the following verse

Gopī syamā sārīdā yādā nātā pālā sārīvā

and his commentator observes, that the last name was given to the *Sariva* from the resemblance of its flowers to those of the *Lipale*, which I thence conclude to be a *Menianthes*, especially as it is always described among the Indian Water-plants. The other synonymous words are taken from VACHASPAKI

26 AVIGNA, or Avanga

SYN *Crishnapacap'halā, Sushnarā, Caramardaca*

VULG *Caranda*, or *Carandā* in two dictionaries, in one, *Pintamala*

LINN *CARISSA Carandas*

CAL *Pertianth* five-cleft, acute, very small, coloured, persistent.

COR. One-petaled, funnel form *Tube* longish, *throat* swoln by the inclosed anthers *Border* five-parted, *divisions* oblong, one side of each embracing the next.

STAM *Filaments* five, extremely short *Anthers* oblong, erect

PIST *Germ* above, roundish *Style* thread form, short, clubbed *Sigma* narrower, pubescent.

PER Berry elliptoidal, two-celled

SEEDS, at least seven, oval, compressed, margined. *Flowers* milk-white, jasmin like. *Fruit* beautiful in form and colour, finely shaded with carmine and white, agreeably acid *Branches* two-forked *Leaves* opposite, short petioled, elliptic, obtuse, most entire, smooth, some *small leaves* roundish inverse-heated *Thorns* axillary, opposite, expanding, *pomis*

bright red. *Peduncles* twin, subterminal, three-flowered, *pedicels* equal. The whole plant, even the fruit, milky. We have both species of *Carissa* in this province, but they melt, scarce distinguishably, into each other.

The *Pānīts* have always brought me this elegant plant as the *Cercandhu*, mentioned by JĀ' IDEVA, but, judging only by the shape and taste of the fruit, they seem to confound it with the *RHAMNUS Jujuba*, and the confusion is increased by the obscurity of the following passage in their best vocabulary:

Cūmītī, -adari, colī, colim, cūmā phēmīle,
Sīrūmī, rādāram, ghōnū—

All agree, that the *śūras* words mean *fruits* only, but some insist, that the *Ghōnū* is a distinct plant, thus described in an ancient verse ‘ The *ghōnū*, called also *gīpaphontī*, is a tree shaped like the *Fodari*, with a very small fruit, growing only in forests.’ For the *ghōnū*, here known by the name of *S. harul*, my servants brought me *RHAMNUS* with leaves alternate egg-oblong, three-nerved, obscurely sawed, paler beneath, and most beautifully veined, floral young leaves crowded, very long, linear, prickly, often solitary, sometimes paired, one straight, one curved, a small globular drupe, quite black, with a one-celled nut the flowers I never saw perfect, but it seems the nineteenth species of *Lippia*. We have many species of *Rhamnus* in our woods and hedges, some like the *Akaterus*, polygamous by male and hermaphrodite flowers, others, distinguished by various forms and positions of the prickles and leaves, but the common *Bādar* or *Bāsar*, is the *Jujube tree*, described by RHEDDE, and by RUMPHIUS called *Indian Apple-tree*. Its Persian name is *Cond'r*, by which it is mentioned in the letters of PIETRO DILLA VALLE, who takes notice of the *sugary* froth procured from its leaves, whence it has in Sanscrit the epithet *phēmīla*.

p'hemla, or *frothy* To the plant the *Arabs* give the name of *Sidr*, and to its fruit that of *Nabik*, from which perhaps, *Napoca* has been corrupted

27 CARAVIRA

SYN *Pratibhasa*, *Sataprasa*, *Chandita*, *Hayamaraaca*

LINN *NERIUM* Oleander, and other species.

VULG *Camer*, *Carbir*

A PLANT SO well known would not have been inserted in this place, if it had not been thought proper to take notice of the remarkable epithet *hayamaraaca*, or *horse-killer*, which rose from an opinion still preserved among the *Hindus*, that a horse, unwarily eating the leaves of the *Nerium*, can hardly escape death most of the species, especially their roots, have strong medicinal, but probably narcotic powers The blue dyed *Nerium* grows in woods at a little distance from my garden, and the *Hindu* peasants, who brought it me, called it *Nil*, or blue a proof that its quality was known to them, as it probably was to their ancestors, from time immemorial.

28 SEPTAPERNA, or seven-leaved.

SYN *Vishla-twarch*, *Sārads*, *Vishama-ch'hada*.

VULG *Ch'hitevani*, *Ch'ha'tyān*, *Ch'halion*

LINN School ECHIRYS.

CAL *Perianth* five-parted, sub-acute, small, villous, permanent, closing round the germ immediately on the removal of the tube.

COR One-petaled, funnel-form *Tube* cylindric below, prominent above, with inclosed anthers, very villous in the throat. *Border* five-parted, shorter

than the tube *dovissions* inverse-edged, obtuse, oblique, reflected, waved on the margin *Nectary*, a circular undivided coronet, or rim, terminating the tube, with a short erect villous edge

STAM. *Filaments* five, cylindric very short in the throat of the tube *Anthers* heart-shaped, cleft, pointed, forming a star, visible through the mouth of the tube, with points diverging

PIST. *Germ* above roundish-edged, very villous, scarce extricable from the calyx enclosing and grasping it *Style* cylindric, as long as the tube *Stigma* two-parted, with parts diverging, placed on an irregular orbiter

PIL. *Pollens* two, linear, very long, one-valved

SEEDS numerous, oblong, compressed with silky pappus, pencilled at both ends

NOTE.

THE whole plant milky *Stem* dotted with minute whitish tubercles *Leaves* mostly revened in verticils at short distances, very soft, oblong inverse-edged, some pointed, some obtuse, some end nicked, some entire, some rather scalloped, with many transverse parallel veins on each side of the axis, rich dark green above, diluted below *Petals* furrowed above, smooth and convex beneath, elongated into a strong protuberant nerve centrally diminishing and evanescent at the apex *Stipular* above erect, acute, set in a coronet round the stem, the verticils of the leaves answering to the definition of fronds *Flowers* rather small, greenish white, with a very particular odour, less pleasant than that of elder-flowers *Peduncles* terminal, with two verticils pedicelled umbel-wise, but horizontal *Pedicels* six headed, many flowered; highest verticils similar to those heads, more crowded *Tree* very large when full grown, light and elegant when young This plant so greatly resemble, the *Pala* of VAT RAEDL (which has more of the *Nerium* than of the *Tibouchina*)

(*sensu*) that I suspect the genus and species to be the same, with some little variety. That author says, that the *Brahmins* call it *Seswana*, but his *Negro* letters make it *Seswina*, and neither of the two words is to be found in *Seswina*. With all due respect to PLEUMIRE and BURMAN, I should call this plant *NARCISSUS SUPERPENA* it is the *Pala* of RUMPHIUS, who enumerates its various uses at great length and with great confidence.

29 ARCA

SYN *Vasuka*, *Asphilia*, *Gouirupa*, *Vicarana*, *Manddra*, *Aracaperna*, and any name of the Sun

VULG *Acanth*, *Anc*

LINN *Gigantic ASCLPIAS*

Nectaries with two-glanded compressed folds, instead of *swelled hornlets* at the summit, spirally eared at the base. Filaments twisted in the folds of the nectaries. Anthers flat, smooth, rather wedge-form. Styles near half an inch long, subcylindric. Stigmas expanded. Flowers terminal and axillary umbel-fascicled, amethyst-coloured, with some darker shades of purple on the petals and nectaries; the starred corpuscle bright yellow. Leaves opposite, heart oblong, mostly inverse egged, subtargeted, very rarely stem-clasping, pointed, villous on both sides, hoary beneath, with soft down, petioles very short, concave and bearded above, with a thickish conical stipule. The whole plant filled with caustic milk. A variety of this species has exquisitely delicate milk-white flowers, it is named *Alarta* or *Pratipsa*, and highly esteemed for its antispasmodic powers. The *Padmuraea*, which I have not seen, is said to have small crimson corols. The individual plants, often examined by me, vary considerably in the form of the leaves and the tops of the nectary.

30 PICHULĀ

SYN *Jharacā*VILG *Phau*KOLĀ *Indian TAMARIN*.

Flowers very small, whitish, with a light purple tinge, crowded on a number of spikes, which form all together a most elegant panicle. Stem generally bent, often straight, and used anciently for arrows by the Persians, who call the plant *Gaz*. The celebrated shaft of ISFENDIYĀR was formed of it, as I learned from BAIRMER, who first showed it to me on a bank of the *Gang*, but asserted that it was common in *Persia*. The leaves are extremely minute, sessile, mostly imbricated. Calyx and corolla as described by LINNAEUS, five filaments considerably longer than the petal, anthers lobed, furrowed, germ very small, style scarce any, stigmas three, revolute, but, to my eyes, hardly feathered.

NOTHNG can be more beautiful than the appearance of this plant in flower during the rains, on the banks of the rivers, where it is commonly interwoven with a lovely twining *ASCLEPIAS*, of which the following description is, I hope, very exact.

31 DRGDHICA or Milk-plant

SYN *Cihrao; Engdhica*VILG *Kjirā, Dadhi, Dadb lata.*

LINN Esculent Periploca.

CAL One-leaved, five-parted, divisions awled, acute, coloured, expanding

COR One petalled, salver-form, star-like, divisions five, egged, pointed, fringed

Nectary double, on a five-cleft base, gibbous between the clefts, protruded, and pointed above, surrounded with a bright green villous rim *exterior* five-parted, *fruitions* egged, converging, attenuated into daggers, each concave externally, gibbous below the cavity, which is two-parted and wrinkled within *Interior* a five-parted corpuscle, lopped above, five-angled, surrounding the fructification

STAM *Filaments* scarce any *Anthers* five, roundish, very minute, set round the summit of the lopped corpuscle

PET *Germ* two, egged, pointed, erect, internally flat *Styles* none, unless you so call the *points* of the germs *Stigma*, none but the *interior nectary*, unless you consider that as a *common stigma*

PER *Follicles* two, oblong, in some, pointed, in others, obtuse, inflated, one-valved, each containing a one-winged *receptacle*

SEEDS numerous, roundish, compressed, crowned with pappus

To each pair of leaves, a peduncle mostly two-flowered, often with three, sometimes with five flowers *Calyx* reddish *Coroll white*, elegantly marked with purple veins, *fringe* white, thick, *anthers* black *Leaves* linear-twisted, pointed, opposite, petioled, with one strong nerve, *stipules* very soft, minute *Stem* smooth, round, twining, the whole plant abounding with *milk*.

32 LA NGALI

SYN *Saradi*, *Tigrapippali*, *Saculadanī*,

VULG *Canchra*, *Isholdingolyd*

RHEED *Cheru vallet?*

LINN *NAME* of *Sida*

CAL. *Perianth* one-leaved, five-parted, villous, *divisions* lanceolate, pointed, long, permanent

COR One petalled, nearly wheeled. *Tube* very short. *Border* five-parted *Divisions* egg-shaped

STAM *Filaments* five, awled, expanding, from the mouth of the tube, adhering to the divisions of the border by rhomboidal concave bases convergent above. *Anthers* large, arrow-shaped

PIST *Germ* above, egg-oblong, two-cleft. *Styles* two, azure, funnel-form, diverging almost horizontally. *Stigmas* lobed, open.

PFR *Capsule* many-seeded

SEEDS very minute

Plant herbaceous, branched, smooth, pale, creeping. *Leaves* alternate, short-petioled, most entire, lance-oblong, smooth, scutellate. *Peduncles* mostly axillary, sometimes terminal, villous, often many-flowered, rarely sub-umbelliferous, three-rayed, with *no* *olives* general and partial. *Corolla* bright blue, or violet. *Stamens* white. The plant is aquatic, and by no means peculiar to *Sil* *n*. I have great reason, however, to doubt, whether it be the *Lungali* of the *Anurashish*, which is certainly the *Canchra* of *Bengal*, for though it was first brought to me by that name, yet my gardener insists that *Canchra* is a very different plant, which, on examination, appears to be the *Ascending Jussiaea of Linnaeus*, with *leaves* *involute*-egg-shaped, smooth, and *peduncles* shorter. Its fibrous, creeping roots are purplish, buoyant, white, pointed, solitary, and at the top of the *germ* sits a *nectary* composed of five shaggy bodies, arched like horse-shoes, with external honey-bearing cavities.

VULG. *Tvi, Marana*

LINN *Most common LINUM*

CAL *Petioles* five-leaved, leaflets oblong, acute, imbricated, keeled, fringed minutely, having somewhat reflected at the points

COR Small, blue petals notched, striated, wavy, reflex, imbricated

STAM *Anthers* light blue, converging, no rudiments of filaments

PIST *Germ* large *Style* pale blue *Sigma* simple

PKE *Capsule* pointed Furrowed

Root simple

Stem Herbaceous, low, erect, furrowed, *knotty*? naked at the base.

Leaves linear, three-nerved, alternate crosswise, sessile, smooth, obtuse, reflected, stipuled, *glanded*?

Stipules linear, Q a minute gland at the base

34 MU'RVA'

SYN *Devi, Madhurasā, Merata, Tejond, Surva, Madhukāra, Madhusreni,*
Gucarni, Pituparni

VULG *Muragd, Murahāsi, Murgabi*

LINN *Hyacinthoid, ALETRIS*

CAL None

COR One-petaled, funnel-form, six-angled *Tube* short, bellied with the germ. *Border* six-parted. *Dressent* lanced, three quite reflected in a circle, three alternate, deflected, pointed

STAM *Filaments* six, awled, as long as the corol, diverging, inserted in the base of the divisions *Anthers* oblong, incumbent

PIST *Germ* inverse egg-shaped, obscurely three-sided, with two or three *honey-bearing* pores on the flattish top *Style* awled, one-furrowed, as long as the stamens *Sigma* clubbed

PERICARP and SEEDS not yet inspected

Root fibrous, tawny, obscurely jointed, stolon-bearing. Scapes long, columnar, sheathed with leaves, unbricated from the root, a few sheaths above, straggling. Leaves fleshy, channelled, sword-form, keeled, terminated with awls, the interior ones longer, mostly arched, variegated with transverse undulating bands of a dark green hue approaching to black.

Raceme erect, very long. Flowers, from three to seven in each fascicle, on very short petioles. Bracts linear, minute. Corolla pale pea-green, with a delicate fragrance, resembling that of the Persian HELIOTROPE, some of the Sanscrit names allude to the honey of these delicious flowers, but the nectareous pores at the top of the germ are not very distinct in one copy of the *Amaracoshha* we read *Dhanuh-sravas* among the synonyms, and if that word, which means a series of bows, be correct, it must allude either to the arched leaves or to the reflected divisions of the corolla. This ALETRIS appears to be a night-flower, the raceme being covered every evening with fresh blossoms, which fall before sun-rise.

FROM the leaves of this plant, the ancient Hindus extricated a very tough elastic thread, called *Marr-i*, of which they made bow-strings, and which, for that reason, was ordained by Meva to form the sacrificial zone of the military class.

35 TARUNI

SIN Saha, Cumarsi

VULG Ghrita-cumarsi

LINN Two-ranked ALOE, A Perfoliata, P?

Flowers

Flowers racemose, pendulous, subcylindric, rather incurved. *Bracts*, one to each peduncle, awled, concave, deciduous, pale, with three dark stripes. *Covs* six-parted, three *external* divisions, orange-scarlet; *internal*, yellow, keeled, more fleshy, and more highly coloured in the middle. *Filaments* with a double curvature. *Germ* six-furrowed. *Stigma* simple. *Leaves* awled, two-ranked, the lowest expanding, sea-green, very fleshy, externally quite convex, edged with soft thorns, variegated on both sides with white spots. VAN RHEEDE exhibits the *true ALOK* by the name of *Cumari*, but the specimen brought me by a native gardener, seemed a variety of the *two-ranked*, though melting into the species which immediately precedes it in LINNAEUS.

36 BACULA

SYN *Cesara*.VULO *Mulsari*, or *Mulasri*.LYNN *Mimusops Elengi*.CAL *Persianum* eight-leaved, leaflets egged, acute, permanent, four *interior*, simple, four *exterior*, leatheryCOR *Petala* sixteen, lanced, expanding; as long as the calyx; *Nectary* eight-leaved, leaflets lanced, converging round the stamen and pistil.STAM *Filaments* eight (or from seven to ten) awled, very short, hairy *Anthers* oblong, etc.PIST *Germ* above, roundish, villous *Style*, cylindric. *Stigma* obtuse.PER *Drupe* oval, pointed; bright orange-scarlet

NUT oval, wrinkled, flattish, and smooth at one edge; broad and two furrowed at the other

Flowers agreeably fragrant in the open air, but with too strong a perfume to give pleasure in an apartment. Since it must require the imagination

of a Burman to discover in them a resemblance to the face of a man, or of an ape, the genus will, I hope, be called *Bacula*; by which name it is frequently celebrated in the *Purâna*, and even placed among the flowers of the Hindu paradise. Leaves alternate, petioled, egg-oblong pointed, smooth. The tree is very ornamental in parks and pleasure-grounds.

37. *As'c'e'a*.

Syn. *Vangua*

CAL. Perianth two-leaved, closely embracing the tube.

COR. One-petaled. Tube long, cylindric, subincurved, mouth encircled with a nectareous rim. Border four-parted, divisions roundish.

STAM. Filaments eight, long, coloured, inserted on the rim of the tube. Anthers kidney-shaped.

PIST. Germ above, oblong, flat. Style short, downy. Stigma bent, simple.

PER. Legume long, compressed at first, then protuberant with the swelling seeds, incurved, strongly veined and margined, sharp-pointed.

SEEDS from two to eight, solid, large, many-shaped, some oblong roundish, some rhomboidal, some rather kidney-shaped, mostly thick, some flat.

LEAVES egg-oblong lanced, opposite, mostly five-paired, nerved, long, from four or five to twelve or thirteen inches.

THE number of stamens varies considerably in the same plant they are from six or seven to eight or nine, but the regular number seems eight, one in the interspaces of the coroll, and one before the centre of each division. Most of the flowers, indeed, have one abortive stamen, and some only mark its place, but many are perfect, and VAN RHEEDE speaks of eight as the constant number in fact no part of the plant is constant. Flowers fascicled, fragrant

fragrant just after sun-set, and before sun-rise, when they are fresh with the evening and morning dew, beautifully diversified with tints of orange-scarlet, of pale yellow; and of bright orange, which grows deeper every day, and forms a variety of shades according to the age of each blossom that opens in the fascicle. The vegetable world scarce exhibits a richer sight than an *Asoea*-tree in full bloom: it is about as high as an ordinary cherry tree. A Brahman informs me, that one species of the *Asoea* is a creeper, and JAYADEVA gives it the epithet *vobule* the Sanscrit name will, I hope, be retained by botanists, as it perpetually occurs in the old Indian poems, and in treatises on religious rites.

38 S A I V A ' L A

SYN *Janahli*, *Sarvali*Vulg *Sundr*, *Syala*, *Patasyala*, *Sehalu*LYNN. *Vallesaria* > R

CAL Common *Spatha* one-leaved, many-flowered, very long, furrowed, two-cleft at the top, each division end-nicked. Proper *Perianth* three-parted, divisions awled.

COR Petals three, linear, long, expanding, fleshy.

STAM Filaments invariably nine, thread-form. Anthers erect, oblong, furrowed.

PIST Germ egged, uneven. Styles always three, short, awled, expanding Stigmas three, simple

PER. Capsule very long, smooth, awled, one-celled, unfolded in an angled *Spatha*

SEEDS very numerous, murexid, in a viscid mucus.

Flowers from six to fourteen, small Scape compressed, very narrow, fleshy, furrowed in the middle.

Pedicel of the floweret thread-form, crimson above, proper *perianth*; rosae, petals white; anthers deep yellow. Leaves sword-form, pointed, very narrow, smooth, and soft, about two feet long, crowded, white at the base. Root small, fibrous. It flourishes in the ponds at Krishna-nagar. The refiners of sugar use it in this province. If this plant be a *Vallunera*, I have been so unfortunate as never to have seen a female plant, nor fewer than nine stamens in one blossom out of more than a hundred, which I carefully examined.

39 PU'TICARAJA

SYN *Pratycya*, *Putica*, *Calimbraca*.

VULG *Natácaranya*

LINN *Glilandina* *Borduccelle*

THE species of this genus vary in a singular manner: on several plants, with the oblong leaves and *double prickles* of the *Borduccelle*, I could see only male flowers — REEDS has described them; they were yellow, with an aromatic fragrance. Others, with similar leaves and *prickles*, were clearly *polygamous*, and the flowers had the following character.

MALE.

CAL. *Perianth* one-leaved, silver-form, downy; *Border* five-parted, with equal, oblong divisions

COR. *Petals* five, wedge-form, obtusely notched at the top; four equal, erect, the fifth depressed.

STAM. *Filaments* ten, awled, inserted in the calyx, villous, very unequal in length. *Anthers* oblong, fuscated, incumbent.

HERMAPHRODITE.

Calyx, Corol, and Stamens, as before.

PIST *Germ oblong, villous Style cylindric, longer than the filaments.
Stigma simple.*

PER and **SEEDS** well described by LINNAEUS

Flowers yellow; the depressed petal variegated with red specks. Bracts three-fold, roundish, pointed. Spikes set with floral leaflets, lanced, four-fold, reflexed.

40 SOBHA'NJANA

SYN *Sigrū, Tīchma, Gāndharvā, Aschīvo, Mochara*

VULG. *Sagana, Moringa.*

LINN *Gauilandus Moringa.*

CAL *Perrands one-leaved. Tube short, unequal, gibbose. Border five-petaled. Drawers oblong-lanceolate, subequal, first deflected, then revolute, coloured below, white above*

COR. *Petals five, inserted into the calyx, resembling a boat-form flower.*

Wing-like, two, inverse-egg-shaped, clawed, expanding.

Awning-like, two, inverse-egg-shaped, erect, claws shorter.

Keel-like, one, oblong, concave, enclosing the fructification, beyond it, spatuled, longer than the wing-petals

STAM *Filaments five, fertile, three bent over the pistil - two shorter, inserted into the claws of the middle petals. Anthers twin, rather rounded, obtuse, incumbent. Five stigmata (often four only) alternate with the fertile, shorter, their bases villous.*

PIST. *Germ oblong, coloured, villous, below it a nectar-bearing gland. Style shorter than the stamen, rather downy, curved, thicker above. Stigma simple.*

PER. *Legume* very long, slender, wreathed, pointed, three-sided, channelled, prominent with seeds, one-celled

SEEDS many, winged, three-sided

TREE very high, branches in an extreme degree light and beautiful, rich with clustering flowers. Stem exuding a red gum. Leaves mostly thrice-feathered with an odd one, leaflets some inverse-egg'd, some egg'd, some oval, minutely end-nick'd. Raceme-panicles mostly axillary. In perfect flowers the whole caylx is quite deflected, counterfeiting five petals, whence VAN RHEEDE made it a part of the corol. Corols delicately odorous, milk-white, but the two central erect petals beautifully tinged with pink. The root answers all the purposes of our horseradish, both for the table and for medicine, the fruit and blossoms are dress'd in *earrs*. In hundreds of its flowers, examined by me with attention, five stamens and a pistil were invariably perfect, indeed, it is possible, that they may be only the female hermaphrodites, and that the males have ten perfect stamens with pistils abortive, but no such flowers have been discovered by me after a most diligent search.

THERE is another species or variety, called *MENHU SIGNU*, that is Honey-Signu, a word intended to be expressed on VAN RHEEDE's plate in Nagore letters, its vulgar name is *Munia*, or *Racia sayana*, because its flowers or wood are of a redder hue.

LINKÆUS refers to Mrs BLACKWELL, who represents this plant by the name of *Balanus Myrepricea*, as the celebrated *Bn*, properly *Bdn*, of the Arabian physicians and poets

41. CO'VIDA'R'A

Syn *Cinchandra, Chamorica, Cuddala, Yugapatra*

Vulg. *Cachnd'r, Racta cd'nchan*

Linn *Variegated BAUHINIA.*

CAL *Pteranth* one-leaved, obscurely five-cleft, deciduous

COR *Petals* five, egged, clawed, expanded, wavy, one more distant, more beautiful, striated

STAM *Filaments* ten, unequally connected at the base, five shorter. *Anthers* double, incumbent

PIST *Germ* above, oblong *Style* incurved *Stigma* simple, ascending

PER *Legums* flattish, long, pointed, mostly five-celled.

SEEDS mostly five, compressed, wrinkled, roundish.

LEAVES rather hearted, two lobed, some with rounded, some with pointed, lobes *Flowers* chiefly purplish and rose-coloured, fragrant, the sweet and beautiful buds are eaten by the natives in their savoury messes We have seen many species and varieties of this charming plant one had racemed flowers, with petals equal, expanding, lanced, exquisitely white, with a rose-coloured stripe from the base of each to its centre, *anthers* four only, fertile, six much shorter, steril, a second had three fertile, and seven very short, barren, another had light purple corolla, with no more than five filaments, three longer, coloured, curved, in a line of beauty

A noble *Climbing BAUHINIA* was lately sent from *Nepal*, with flowers racemed, cream-coloured, *style* pink, *germ* villous *stamens* three filaments, with rudiments of two more, *stem* downy, four-furrowed, often spirally *Tendrils* opposite, below the leaves. *Leaves* two-lobed, extremely large it is a stout climber up the highest *ARUNDO* *Venue*. The Sanscrit name *Mandara* is erroneously applied to this plant in the first volume of *VAN RHEEDE*

42 CAPIT'T'HA

SYN. *Grahamia, Dodonif'ha, Maunoi'ha, Doddyph'ala, Pushpop'hala, Dantes-sat'ha.*

VULG. *Cat'h-bel*

KOEN. *Crataeva, Palanga.*

CAL. *Persianth* five-parted, minute, deciduous, divisions expanded, acute
COR. *Petals* five, equal, oblong, reflexed

STAM. *Filaments* two, very short, with a small *gland* between each pair,
awled, furrowed *Anthers* thick, five times as long as the filaments, fur-
rowed, coloured, erect-expanding

PIST. *Ovary* roundish, girt with a downy coronet *Style* cylindric, short
Stigma simple

PER. *Berry* large spheroidal, rugged, often warty externally, netted within;
many seeded.

SEEDS oblong-roundish, flat, woolly, nestling in five parcels, affixed by long
threads to the branched receptacle.

Flowers axillary, mostly toward the unattained extremity of the branch *Divi-*
sions of the *Persianth* with pink tips, *petals* pale, *anthers* crimson, or cov-
ered with bright yellow pollen. *Fruit* extremely acid before its maturity,
when ripe, filled with dark brown pulp, agreeably tubacid. *Leaves* joint-
edly feathered with an odd one, *leaflets* five, seven, or nine, small, glossy,
very dark on one side, inverse-hearted, obtusely-notched, dotted round the
margin with pellucid specks, very strongly flavoured and scented like anise.
Thorns long, sharp, solitary, ascending, nearly cross-armed, axillary, three
or four petioles to one thorn. KELINKOFF limits the height of the tree to
thirty feet, but we have young trees forty or fifty feet high, and at Bandell
there is a full grown *Capit'tha* equal to size to the true *Bilea*, from its fan-
cied resemblance to which the vulgar name has been taken. When the trees
flourish,

florah, the air around them breathes the odour of anise, both from the leaves and the blossoms, and I cannot help mentioning a singular fact which may indeed have been purely accidental—not a single flower, out of hundreds examined by me, had both *perfect germs* and anthers *visibly fertile*, while others, on the same tree and at the same time, had their anthers profusely covered with *pollen*, but scarce any *styles*, and *germs* to all appearance *abortive*.

43 COVE'KACA

SIN *Tunna*, *Tun*, *Cach'ha*, *Cantaluca*, *Cum*, *Nanduricsha*

VULG *Tun*, *Tun*, absurdly *Vilayati*, *Nim*

LINN Between *CEDRELA* and *SWIETENIA*

CAL. *Perianth* one-leaved, five-cleft, minute, deciduous, *divisions* roundish, concave, villous, expanding

COR Rather bellied. *Petals* five, inverse-egged, obtuse, concave, erect, white with a greenish tint, *three* exterior lapping over the *two* others. *Nectary* short, five parted, *divisions* roundish, orange-scarlet, bright and concave at the insertion of the stamens, rather downy

STAM *Filaments* five, inserted on the *divisions* of the *nectary*, awled, somewhat converging, nearly as long as the style. *Anthers* doubled, some three-parted, curved, incumbent.

PIST *Germ* egged, obscurely five-cleft. *Style* awled, erect, rather longer than the coroll. *Stigma* broad-headed, flat, bright, green, circular, starred

PRR *Capsule* egged, five-celled, woody, gaping at the base. *Receptacle* five-angled

SEEDS imbricated, winged

Leaves feathered, scarce ever with an odd one, *pairs* from six to twelve, petioles, gibbous at their insertion, channelled on one side, convex and smooth

on the other *Stipules* thick, short, roundish, *leaflets* oblong-lanceolate, pointed, waved, veined, nerve on one side. *Panicles* large, diffuse, consisting of compound racemes. *Nectarines* yielding a fine yellow dye. *Wood* light, in colour like *Mahagoni*.

44. NICKULA.

Syn. Ambuya, Ijala

Vulg. Hijala, Badia, Jyli.

CAL. *Pernianth* one-leaved, bell-shaped, fleshy, downy, coloured, permanent, five-parted, *divisions* erect, pointed.

COR. Five-petaled, *petals* egged, short pointed, revolute, downy within and without.

STAM. *Filaments* ten, five mostly shorter, inserted in the bell of the calyx; awled, villous. *Anthers* erect, oblong, furrowed.

PIST. *Germ* egg-oblong, very villous. *Style* thread-form, curved. *Stigma* headed, with five obtuse corners.

PER. *Drupe* subglobular.

Nuts scabrous, convex on one side, angled on the other.

Leaves scattered, *pars*, from five to nine, *leaflets* oblong, daggered, notched. *Calyx* pale pink. *Coral* darker pink without, bright yellow within. *Cyme* terminal, spreading.

45. ATIMUCHA:

Syn. Pus'draca, Vasant, Mahavilasi.

Vulg. Madhavilata

Linn. Bengal BANISTERIA.

RHEEDA *Desmodia*, 6 H. M. tab. 59.

CAL. *Pernianth* one-leaved, five-parted, permanent; *divisions* coloured, oblong-

oblong-oval, obtuse; between two of them a rigid glossy honey-bearing tubercle, hearted, acute

COR Five-petaled, imitating a boat-form corol. *Wings*, two petals, conjoined back to back, involving the *nectary*, and retaining the honey.

AWING, large concave, more beautifully coloured *Keel*, two petals, less than the wings, but similar. All five roundish, elegantly fringed, with reflected margins, and short oblong claws

STAM Filaments ten, one longer *Anthers* oblong, thickish, furrowed

PIST. *Germ* two, or three, coalesced *Style* one, thread form, incurved, shorter than the longest filament *Sigma* simple

PER *Capsules* two or three, mostly two, coalesced back to back, each keeled, and extended into three oblong membranous *wings*, the lateral shorter than the central

SEEDS roundish, solitary

Racemes axillary *Flowers* delicately fragrant, white, with a shade of pink, the large petal supported by the nectareous tubercle, shaded internally with bright yellow and pale red *Bracts* linear, *Wings* of the seed light brown, the long one russet *Leaves* opposite, egg oblong, pointed *Petioles* short. *Stipules* linear, soft, three or four to each petiole Two glands at the base of each leaf *Stem* pale brown, ringed at the insertion of the leaves, downy

This was the favourite plant of SACONTALA, which she very justly called the *Delight of the Woods*, for the beauty and fragrance of its flowers give them a title to all the praises which CA'LIDA & JAYADEVA bestow on them. It is a gigantic and luxuriant climber, but, when it meets with nothing to grasp, it assumes the form of a sturdy tree, the highest branches of which display, however, in the air their natural flexibility and in-

cinnamon to climb The two names, *Pánsis* and *Mihárovi*, indicate a *vernal* flower, but I have seen an *Amaranta* rich both in blossoms and fruit on the first of January.

46. 'AMRA'TACA.

SYN *Pisana*, *Capitana*VULG. *Amdá*, pronounced *Arra*, or *Amlá*LINN SPONDIAS *Myrobalan* ♂ or a new species.

THE natural character as in LINNÆUS. Leaves feathered with an odd one, leaflets, mostly five paired, egg oblong, pointed, margined, veined, nerved, common petiole smooth, gibbous at the base. Flowers raceme-petaled, yellowish white. Fruit agreeably acid, thence used in cookery. VAN RHEEDE calls it *Ambado* or *Ambalam*, and, as he describes it with *five* or *six* styles, it is wonderful that HILL should have supposed it a *Chrysobalanus*.

47. HL'MASA'GARA, or the Sea of Gold,

VULG *Himságar*

Linn. Jagged-leaved COTYLEDON

CAL *Persianth* four-cleft, divisions acute.

COR One-petaled *Tube* four-angled, larger at the base, *border* four-parted; *divisions* egged, acute. *Nectary* one minute, concave scale at the base of each germ

STAM. *Filaments* eight, adhering to the tube; *four* just emerging from its mouth, *four* alternate, shorter. *Anthers* erect, small, furrowed

PIST. *Germ* four, conical *Styles*, one from each germ, awled, longer than the filament *Stigmas* simple

PFR. *Capsules* four, oblong, pointed, bellied, one valved, bursting longitudinally within.

SEEDS numerous, minute.

Panicles terminal. *Flowers* of the brightest gold-colour. *Leaves* thick, succulent, jagged, dull sea-green. *Stem* jointed, bending, in part recumbent. This plant flowers for many months annually in *Bengal* in one blossom out of many, the numbers were *ten* and *five*, but the filaments alternately long and short.

48. MADHU'CA

SYN *Gurapushpa*, *Madhudruma*, *Vanaprastha*, *Madhuskt'hila*, *Madhu-*

Vulg. Mahylā, *Mahuyd*, *Mahvud*.

LINN Long-leaved *BASSIA*.

49. CAHLA'R'A*

SYN *Saugandhica*, or *Sweet-scented*

VULG *Sundhi-hald*, or *Sundhi-hald-nah*.

LINN *NYMPHEA Lotus*

Calyx as in the genus

COR. *Petals* fifteen, lanced, rather pointed and keeled, the exterior series green without, imitating an interior calyx.

STAM. *Filaments* more than forty, below, flat, broad, above, narrow, channeled within, smooth without, the outer series erect, the inner somewhat converging. *Anthers* awled, erect, some coloured like the petals.

* According to the sacred Granmas, this word was written *Cahla're*, and pronounced as *Calla* would be in ancient British. When the flowers are red, the plant is called *Hollis* and *Roxo lindbecki*.

Pist. Grown large, orbicular, flat at the top, with many (often seventeen) furrows externally, between which arise as many processes, converging toward the *stigma*, the disk marked with as many furrowed rays from the center, uniting on the margin with the converging processes. *Stigma* roundish, rather compressed, semicircular in the centre of the disk, permanent
Per. Berry in the form of the *gown* expanded, with sixteen or seventeen cells.

SEEDS very numerous, minute, roundish. *Flowers* beautifully azure, when full blown more diluted, less fragrant than the red, or rose-coloured, but with a delicate scent. *Leaves* radical, very large, subtriangular, hearted, deeply scollop-toothed. On one side dark purple, reticulated, on the other dull green, smooth. *Petioles* very smooth and long, tubular. The seeds are eaten, as well as the bulb of the root, called *Salsis*, a name applied by Rheed to the whole plant, though the word *Canala*, which belongs to another *Linnéan* species of *Nymphaea*, be clearly engraved on his plate in *Négar's* letters. There is a variety of this species with leaves purplish on both sides, flowers dark crimson, calycine petals richly coloured internally, and anthers flat, furrowed, adhering to the top of the filaments the petals are more than fifteen, less pointed, and broader than the blue, with little odour.

THE tree *Lotus* of Egypt is the *NYMPHEA Nilifera*, which in Sanscrit has the following names or epithets *PADMA*, *Nalma*, *Aravinda*, *Mahotsala*, *Canala*, *Cureshaya*, *Saharapatra*, *Sravana*, *Pancruda*, *Tamorata*, *Sarasiruha*, *Rajivu*, *Vishnugrasina*, *Pukkura*, *Anikkruha*, *Satapatra*. The new-blown flowers of the rose-coloured *PADMA* have a most agreeable fragrance, the white and yellow have less odour the blue, I am told, is a native of *Cashmír* and *Persia*.

50 CHAMPACA

SYN *Champaea*, *Hemaphilopaeas*.VULG. *Champac*, *Champa*.LINN *Michelia*

THE delineation of this charming and celebrated plant, exhibited by VAN RHEEDA, is very correct, but rather on too large a scale—no material change can be made in its *natural character* given by LINNAEUS; but, from an attentive examination of his two *species*, I suspect them to be *varieties* only, and am certain that his trivial names are merely different ways of expressing the same word. The strong aromatic scent of the gold-coloured *Champac*, is thought offensive to the bees, who are never seen on its blossoms, but their elegant appearance on the black hair of the Indian women is mentioned by RUMPHIUS, and both facts have supplied the *Sensoris* poets with elegant allusions. Of the wild *Champac*, the leaves are lanceolate, or lance-oblance, the three leaflets of the *color* green, oval, concave, the *petals* constantly six, cream-coloured, fleshy, concave, with little scent, the three *exterior* inverse-egg-shaped; the three *interior* more narrow, shorter pointed, converging, the *anthers* clubbed, closely set round the base of the umbricated germs, and with them forming a cone, the *stigmae* minute, jagged.

BOTH MR MARSDEN and RUMPHIUS mention the blue *Champac* as a rare flower highly prized in Sumatra and Java; but I should have suspected that they meant the KLEMPFERIA *Brahmapuc*, if the Dutch naturalist had not asserted that the plant which bore it was a tree resembling the *Champaca* with yellow blossoms—he probably never had seen it, and the Brāhmens of this province insist, that it flowers only in paradise.

51 DÉVADARU

SYN *Sacrapadpa*, *Páribhadra*, *Bhadradri*, *Dahalma*, *Pitaddr*,
Daru, *Punicashīha*

VULG *Dévadar*.

LINN. *Most lofty UNONA*.

52 PARNASA

SYN *Tulasi*, *Cat'hayara*, *Cat'héraca*, *Vrinda*.

VULG *Tulasi*, *Tulsi*

LINN. *Holy OCYMMUM?*

The Natural Character as in LINNÆUS

See 10 H. M. p 173.

IT is wonderful that RAEDER has exhibited no delineation of a shrub so highly venerated by the Hindus, who have given one of its names to a sacred grove of their *Parnassus* on the banks of the Yamuna! he describes it, however, in general terms, as resembling another of his *Tulasis* (for so he writes the word, though *Tulasi* be clearly intended by his *Nāgarī* letters), and adds, that *it is the only species reputed holy, and dedicated to the God VISHNU* I should, consequently, have taken it for the *Holy OCYMMUM* of LINNÆUS, if its odour, of which that species is said to be nearly destitute, had not been very aromatic and grateful, but it is more probably a variety of that species than of the *Small-flowered*, which resembles it a little in fragrance. Whatever be its *Linnean* appellation, if it have any, the following are the only remarks that I have yet had leisure to make on it.

STEM one or two feet high, mostly incurved above, knotty and rough below. Branchlets cross-armed, channelled. Leaves opposite, rather small,

small, egged, pointed, acutely sawed, purple veined beneath, dark above
Petals dark purple, downy *Racemes* terminal, *Flowers* verticillid three-fold or five-fold, cross-armed, *verticils* from seven to fourteen, *Peduncles* dark purple, channelled, villous, *bracts* sessile, roundish, concave, reflected *Calyx* with its upper lip orbicular, deeply concave externally *Coroll* bluish purple. The whole plant has a dusky purplish hue approaching to black, and thence, perhaps, like the large black bee of this country, it is held sacred to KRISHNA, though a fable, perfectly Ovidian, be told in the *Purânas* concerning the metamorphosis of the nymph TULASI, who was beloved by the pastoral God, into the shrub, which has since borne her name It may not be improper to add, that the *White OCTIMUM* is in Sanscrit called *Arjaca*

53. PATALE.

SYN. *Pataka*, *Amogha*, *Ca'chasi'ha h*, *P'halci'uh*, *Crishnacrin*t**, *Cucrach*. Some read *Mogha'* and *Ca'la'si'ha h*.

VULG. *Parald*, *Parah*, *Pa'sal*?

LINN. *BIGNONIA*. *Chelonoides?*

CAL. *Perianth* one-leaved, bellied, villous, wrinkling, obscurely five-angled from the points of the divisions, five-parted, *divisions* roundish, pointed, the two lowest most distant

COR. One-petaled, bellied *Tube* very short, *throat* oblong bellied, gibbous *Border* five-parted, the two higher divisions reflected, each minutely toothed, convex externally, the three lower divisions, above, expanded, below, ribbed, furrowed, very villous *Palate* nearly closing the throat *Nectary*, a prominent rim, surrounding the *germ*, obscurely five-parted

STAM. *Filaments* four or five, incurved, inserted below the *upper* division of the border, shorter than the coroll, with the *rudiment* of a fifth or sixth,

between two shorter than the rest. *Anthers* two-cleft, incumbent at obtuse angles.

Pist. *Germ* oblong-conical. *Style* thread-form, as long as the stamens. *Stigma* headed with two folds, often closed by viscosity

Pkr. *Capsule* one-celled, two valved, twelve inches long at a medium, and one inch thick, rounded, four-sided, pointed, incurved, rather contorted, diminished at both ends, dotted with ashy specks, here and there slightly prominent, striated, two stripes broader, very dark, at right angles with the valves

Rec. A series of hard, broadish, woody rings, closely strung on two wiry central threads.

S. rds numerous, forty-eight on an average, three-angled, inserted by one angle in cavities between the rings of the receptacle, into which they are closely pressed by parallel ribs in the four sides of the capsule, winged on the two other angles with long subpellucid membranes, imbricated along the sides of the receptacle

Tree rather large Stem scabrous

Branchlets cross-armed, yellowish green, speckled with small white lines. Leaves feathered with an odd one, two or three paired, petioled. Leaflets opposite, egged, pointed, most entire, downy on both sides, veined, older leaflets roughish, margined, netted and paler below, daggered. Petals tubercled, gibbous at the base, of the paired leaflets, very short, of the odd one, longer. *Styphodes* linear. Flowers panicled; pedicels opposite, mostly three-flowered, an odd flower subsessile between the two terminal pedicels. Corolla, externally, light purple above, brownish purple below, hairy at its concrexity, internally dark yellow below, amethystine above, exquisitely fragrant, preferred by the bees to all other flowers, and compared by the poets to the quiver of CA'V'DE V', or the God of Love. The whole plant,

plant, except the root and stem, very downy and viscid. The fruit can scarce be called a *siliqua*, since the seeds are nowhere affixed to the sutures, but their wings indicate the genus, which might properly have been named *Pterospermum* - they are very hard, but enclose a white sweet kernel, and their light-coloured summits with three dark points, give them the appearance of the winged insects. Before I saw the fruit of this lovely plant, I suspected it to be the *BIGNONIA Cheloneoides*, which VAN RHEEDE calls *Padri*, and I conceived that barbarous word to be a corruption of *Pitah*, but the pericarp of the true *Pitah*, and the form of the seeds, differ so much from the *Padri*, that we can hardly consider them as varieties of the same species, although the specific character exhibited in the Supplement to LINNÆUS, corresponds very nearly with both plants.

The *Pitah* blossoms early in the spring, before a leaf appears on the tree, but the fruit is not ripe till the following winter.

54 GOCANT'ACA

SYN *Palancsha*, *Ieshugandha*, *Swadanshtra*, *Swaducantaca*, *Obeschuraca*,
Vanas'rñigata

VULG *Goeshura*, *Gokyura*, *Culp*

RHEEDE *Bahl Chilli*

LIIN Long-leaved, *BARLERIA*?

CAL *Perianth* one leaved, hairy, five-toothed, upper tooth long, incurved, pointed, two under and two lateral shorter, subequal, winged with subpellucid membranes

COR One petalled, two-lipped. *Tube* flatish, curved, protuberant at the mouth. *Upper lip* erect, two-parted, reflected at the sides, convexe in the middle, enclosing the fructification. *Under lip* three parted, reflected,

with two parallel, callous, hispid bodies on the centre of its convexity,
Divisions inverse-hearted

STAM. *Filaments* four, inserted in the mouth of the tube, connected at their base, then separated into pairs and circling round the pistil, each pair united below, consisting of a *long* and a *short* filament. *Anthers* arrowed.

PIST. *Germ* awled, pointed, furrowed, with prominent seedlets, sitting on a glandular pedicel. *Style* thread-form, longer than the stamens, incurved above them. *Stigma* simple

PER.

Flowers verticillated, *Corolla* blue, or bright violet, centre of the *under-lip* yellow. *Verticils*, each surrounded by six *thorns*, very long, diverging, coloured above, under which are the *leaves*, alike verticillated, lanced, acutely sawed, pubescent, interspersed with bristles. *Stem* jointed, flattish, hairy, reddish, furrowed on both sides, broader at the joints, or above the verticils, *furrows* alternate

55 SINDHUCA

SYN. *Sudhevara*, *Indrasurisa*, *Nirvanda*, *Indranica*.

VULG. *Aj'sinda*

LINN. Three-leaved *VITEX*, or *Negundo*?

CAL. *Perianth* five-toothed, beneath, permanent, *toothlets* acute, sub-equal

COR. One-petaled, grammar. *Tube* funnel-shaped, internally villous, border two-lipped, *upper lip* broad, concave, more deeply coloured, *under lip* four-cleft, *divisions* acute, similar

STAM. *Filaments* four, two shorter, adhering to the *Tube*, villous at the base. *Anthers* half-mooned.

PIST.

PIST. *Germ* globular, *Style* thread-form, *Sigma* two-parted, pointed, reflex

PER Berry (unless it be the coat of a naked seed) roundish, very hard, black, obscurely furrowed, with the calyx closely adhering.

SEEDS from one to four? I never saw more than one, as RHEEDA has well described it.

FLOWERS raceme-panicked, purplish or dark blue without, greyish within, small *Racemes* mostly terminal, some pedicels many-flowered

STEM distinctly four-sided, sides channelled, jointed, bending. *Stipules* egged, scaly, thickish, close *Branchlets* cross-armed.

THE tube of the corol is covered internally with a tangle of silvery silky down, exquisitely beautiful, more dense below the upper lip

THIS charming shrub, which seems to delight in watery places, rises to the height of ten or twelve, and sometimes of twenty feet, exhibiting a most elegant appearance, with rich racemes or panicles lightly dispersed on the summit of its branchlets. On a comparison of two engravings in RUMPHIUS, and as many in VAN RHEEDE, and of the descriptions in both works, I am nearly persuaded that the SINHUCA, or *Arigandi*, is the VITEX *Negundo* of LINNAEUS, but it certainly resembles the three-leaved VITEX in its leaves, which are opposite, egged, acute, petioled, above mostly *thrasid*, below mostly *fied*, paler beneath, rarely sawed and very slightly, but generally entire they are very aromatic, and pillows are stuffed with them, to remove a cold in the head and a head ach occasioned by it. These, I presume, are the shrubs which BONTIUS calls *Lagondi*, and which he seems to consider as a panacea.

CA'RAVELLA

56 **CA'RAVELLA**SYN *Catillaca*, *Sushavī*.VULG Beng *Harkuriya*, Hind *Coralid'*LINK Five-leaved *Cleome?*CAL *Peraanth* four-leaved, gaping at the base, then erect, *leaflets* egg-oblong, concave, downy, deciduousCOR Cross-form *Petals* four, expanding, *claws* long, *folds* wrinkled
Nectary, from six to twelve roundish, perforated *glands*, girding the gibbous *receptacle*.STAM *Filaments* six, thread form, hardly differing in length, inserted on a pedicel below the germ *Anthers* erect, pointed, furrowedPIST. *Germ* erect, linear, long, downy, sitting on the produced pedicel
Style very short *Stigma* headed, flat, circularPER *Siliques* one-celled, two-valved, spindle shaped, with protuberant seeds,
crowned with the permanent styleSEEDS very many, roundish, nodding *Receptacles* linear, often more than two

The whole plant, most distinctly one piece *Root* whitish, with scattered capillary fibres *Stem* herbaceous, pale green, in parts purple, hairy, cross armed, produced into a long *raceme* crowded at the summit *Branchlets*, similar to the stem, leaf-bearing, similar, but smaller leaves rising also from their axils *Leaves* five'd, roundish-rhomboidal, notched, pointed, hairy, dark green, the lower pairs respectively equal, the odd one much larger, strongly ribbed with processes from the petiol-branchlets, conjoined by the bases of the ribs, in the form of a starlet, each ray whitish and furrowed within *Calyx* green *Petals* white *Anthers* covered with gold-coloured pollen *Pedicels* purplish *Bracts* three'd, similar to the caulinæ

cauline leaves. The sensible qualities of this herb seem to promise great antispasmodic virtues, it has a scent much resembling *assafetida*, but comparatively delicate and extremely refreshing. For pronouncing this *Cleome* the *Caravelia* of the ancient Indians, I have only the authority of RHEDDE, who has exactly written that word in Malabar letters. As to his *Brahmanical* name *Tilons*, my vocabularies have nothing more like it than *Tilaca*, to which *Cshuraca* and *Srimai* are the only synonyms.

57 NA'GACE'SARA

SYN Chimpēya, Cesara, Canchana, or any other name of gold.

VULG Nagasar

LINN Iron Mesua.

To the botanical descriptions of this delightful plant, I need only add, that the tree is one of the most beautiful on earth, and that the delicious odour of its blossoms justly gives them a place in the quiver of CA'MA'DE'VA. In the poem, called *Nashadha*, there is a wild but elegant couplet, where the poet compares the white of the *Na'gace'sara*, from which the bees were scattering the pollen of the numerous gold-coloured anthers, to an alabaster-wheel, on which CA'MA was whetting his arrows, while sparks of fire were dispersed in every direction. Surely, the genuine appellation of an Indian plant should be substituted for the corrupted name of a Syrian physician, who could never have seen it and, if any trivial name were necessary to distinguish a single species, a more absurd one than iron could not possibly have been selected for a flower with petals like silver and anthers like gold.

58. SALMALI.

SYN *PickPhulā*, *Phranā*, *Mochā*, *Skhirsyush*.

VULG *Semel*.

LINN Seven-leaved BOMBAX,

59. SAN'A.

SYN. *Sandpushpīd*, *Ghantāravā*

VULG *San*, pronounced *Sun*

LINN Rushy *Crotalaria*

CAL *Perianth* one-leaved, villous, permanent, short below, gibbous on both sides, with minute linear tracts *Upper teeth* two, lanced, pressing the banner, *lower tooth*, boat-form, concave, two-gashed in the middle, cohering above and below, sheathing the keel, rather shorter than it, pointed.

COR Boat-form.

Banner broad, large, acute, rather hearted, with two dark callousies at the base, and with compressed sides, mostly involving the other parts a dark line from base to point

Wings inverse-egg-oblong, with dark callous bodies at their axils, two thirds of the banner in length

Keel flattened at the point, nearly closed all round to include the fructification, very gibbous below, to receive the germ

STAM *Filaments* ten, coalesced, cleft behind, two-parted below, alternately short with linear furrowed erect, and long with roundish *anthers*

PIST *Germ* rather awled, flat, villous, at a right angle with the ascending, cylindric, downy *Style* *Stigma* pubescent, concave, open, somewhat lipped.

PER *Legume* pedicelled, short, velvety, turgid, one celled, two-valved
SEEDS,

SEEDS, from one or two to twelve or more, round kidney-form, compressed

Flowers deep yellow *Leaves* alternate, lanced, paler beneath, keeled, petioles very short, *stipules* minute, roundish, villous *Stem* striated

Threads, called *pavitraca*, from their supposed purity, have been made of *Sana* from time immemorial they are mentioned in the laws of MENU

The *retuse leaved CROTALARIA*, which VAN RHEDE, by mistake calls *Schama Puspi*, is cultivated, I believe, for the same purpose RUMPHIS had been truly informed that threads for nets were made from this genus in *Bengal*, but he suspected the information to be erroneous, and thought that the persons who conveyed it had confounded the *Crotalaria* with the *Capsular CORCHORUS* Strong ropes and canvas are made of its macerated bark

The *Jangal san*, or a variety of the *casely CROTALARIA*, has very beautiful flowers, with a greenish white banner, purple striped, wings bright violet stem four-angled and four-winged, leaves egged, obtuse, acute at the base, curled at the edges, downy, stipules two, declining, mooned, if you chuse to call them so, but irregular, and acutely pointed In all the Indian species, a difference of soil and culture occasion varieties in the flower and fructification,

60. JAYANTI'

SIN *Jaya'*, *Tercasi*, *Nadeyl*, *Lajayurtha*

VULG *Jamti Jahi*, some say, *Aran*.

RHEDE *Kedangu*

LINN. *ÆSCHYNOMENE Sesban.*

CAL Perianth one leaved, rather bellied, five-cleft, toothlets awled, erect, sub-equal, more distant on each side of the awning, permanent

COR Boat-form

Awning very broad, rather longer than the wings, inverse-hearted, quite reflected so as to touch the calyx, waved on the margin, furrowed at the base internally, with two converging hornlets fronting the aperture of the keel, gibbous below, awled upwards, acute, erect, within the wings.
Wings oblong, clawed, narrower above, obtuse, spurred below, embracing the keel and the hornlets of the awning.

Keel compressed, enclosing the fructification, inflected nearly in a right angle, gashed below and above the flexure, each division hatchet-form, beautifully striated

STAM *Filaments* simple and nine cleft, inflected like the keel; the *simple* one curved at the base. *Anthers* oblong, roundish.

PIST *Germ* compressed, linear, erect as high as the flexure of the filaments with visible partitions. *Style* nearly at a right angle with the germ, awled, inflected like the stamen. *Stigma* rather headed, somewhat cleft, pellucid.

PER Legume very long, slender, wreathed when ripe, smooth at the valves, but with seeds rather protuberant, many-parted, terminated with a hard sharp point

SEEDS oblong, rather kidney-shaped, smooth, slightly affined to the suture, solitary.

STEM arborescent, rather knotty. *Leaves* feathered, pairs from nine to fifteen, or more, often alternate, *leaflets* oblong, end-toothed, some with an acute point, dark green above, paler beneath, with a gibbosity at the insertion of the petioles, sleeping, or collapsing, towards night. *Racemes* axillary, *pedicels* with a double curvarose or line of beauty, *flowers* small, six or seven, varying in colour; in some plants, wholly yellow, in others, with a blackish-purple awning yellow within, and dark yellow wings.

wings tipped with brown, in some with an *awning* of the richest orange-scarlet externally, and internally of a bright yellow, wings yellow, of different shades, and a keel pale below, with an exquisite changeable light purple above, situated in elegant curves. The whole plant is inexpressibly beautiful, especially in the colour of the buds and leaves, and the grace of all the curves, for there is no proper angle in any part of it. The Brahmins hold it sacred. VAN RAERDE says, that they call it *Cananga*, but I never met with that word in Sanscrit; it has parts like an *Hedysarum*, and the air of *Cytisus*.

61 PALASA;

SIN *Cassia*, *Parna*, *Putiputha*VULG. *Palas*, *Plas*, *Dha'c*KORN *Butea frondosa*.CAL *Perianth* bellied, two-lipped *upper lip* broader, obscurely end-nicked,
under lip three cleft, downy, permanent

COR Boat form

Awning reflexed, hearted, downy beneath, sometimes pointed.*Wings* lanced, ascending, narrower than the keel*Keel* as long as the wings, two-parted below, half-mooned, ascendingSTAM *Filaments* nine and one, ascending, regularly curved *Anthers* linear, erectPIST *Germ* pedicelled, oblongish, downy.*Style* awled, about as long as the stamens. *Stigma* small, minutely cleft.PER *Legume* pedicelled, oblong, compressed, depending

SEED one, toward the apex of the podcarp flat, smooth, oval-roundish.

Flowers raceme-fascicled, large, red, or French scarlet, silvered with down.

Leaves three'd, petioled, *leaflets* entire, stipuled, large, rhomboidal; the lateral ones unequally divided, the terminal one larger, equally bisected, brightly verdant A perfect description of the *arborescent* and the *towering* *PALA'SA* has been exhibited in the last volume, with a full accouit of its beautiful red *gum*, but the same plant is here shortly described from the life, because few trees are considered by the *Hindus* as more venerable and holy The *Pals'a* is named with honour in the *Vedas*, in the laws of *MENU*, and in *Sanskrit* poems, both sacred and popular, it gave its name to the memorable *plum* called *Plassey* by the vulgar, but properly *Pals'i*, and, on every account, it must be hoped that this noble plant will retain its ancient and classical appellation A grove of *Pals'as* was formerly the principal ornament of *Crishna-nagar*, where we still see the trunk of an aged tree near six feet in circumference This genus, as far as we can judge from written descriptions, seems allied to the *Nassolia*

62 CARANJACA,

SYN *Chirabikva, Nactamula Caraya.*VULG *Caranya*RHEEDE *Curanschu*, 6 H M tab. 3CAL *Perianth* one-leaved, cup-form, obscurely five-toothed, or scalloped, beaked

COR Boat-form.

Awnung broad, eod-nick'd, striated, rather spirally inflected, with two callousites at its base*Wing*: oblong, of the same length with the awning.*Keel* rather shorter, gibbous below, two-partedSTAM *Filaments* nine in one body, gaping at the base, and discovering a tenth close to the style *Anthers* egged, erect.

PIST. *Germ* above, oblong, downy *Style* incurved at the top. *Stigma* rather headed

PER *Legume* mostly one-seeded, thick, rounded above, flattish, beaked below

SEED oblong-roundish, rather kidney-form

Racemes axillary *Awnings* pale, wings violet *Leaves* feathered with an odd one, mostly two-paired, *leaflets* egg-oblong, pointed, keeled, short petioled, brownish on one side, pale on the other *Common petiol gibbons* at its base The seed yields an oil supposed to be a cure for the most invertebrate scabies.

63 ARJUNA

Syn *Nadisarya*, *Virataru*, *Indradru*, *Cacubhu*.

Vulg *Jorat*

RHEDE *Adamboe*, 4 H M tab 20, 21, 22

LINN *Beautiful MUNCHHAUSIA*?

KOEN *Queen's Flower LAGERSTKOEMIA*?

CAL *Perianth* one-leaved, six-cleft, top shaped, furrowed, with protuberant ridges, downy, permanent, *divisions* coloured, with points reflected
 Cox *Petals* six, roundish, somewhat notched, expanding, wavy, *claws* short, inserted in the calyx.

STAM *Filaments* coloured, numerous, capillary, shortish, obscurely conjoined in six parcels, one to each *division* of the calyx *Anthers* thick, incumbent, roundish, kidoey-shaped.

PIST *Germ* above, egged. *Style* coloured, loogish, thread-form, incurved *stigma* obtuse

PER *Capsule* egged, six celled, six-valved

SEEDS numerous

Panicles factious, terminal, erect. *Flowers* violet or light purple, in the highest degree beautiful. *Leaves* alternate, leathery, some opposite, egg-oblong, striped, most entire, short petioled, smooth, paler beneath. *Branches* round and smooth. I have seen a single panicle waving near the summit of the tree, covered with blossoms, and as large as a milkmaid's garland. The timber is used for the building of small boats.

64. VANDA'

Syn *Vitis hirsuta*, *Vitis hirsuta*, *Houttuynia*.

Vulg *Banda*, *Persara*, *Perasara*

These names, like the *Linnæan*, are applicable to all *parasitic* plants

LIN Retuse-leaved EPIDENDRUM ?

CAL Spathes minute, straggling

COR Petals five, diverging, oval-oblong, obtuse, wavy, the two lowest larger, the three highest equal, bent towards the nectary

Nectary central, rigid. Mouth gaping, oblique. Upper lip shorter, three-parted, with a polished honey-cup, under lip concave in the middle, keeled above, with two smaller cavities below, two processes at the base, incurved, hollow, oval-pointed, converging, honey-bearing

STAM Filaments very short. Anthers round, flattish, margined, covered with a lid, easily deciduous from the upper lip of the nectary

PIST Germ beneath long, ribbed, contorted with curves of opposite flexure. Style very short, adhering to the upper lip. Stigma simple

P.L.R Capsule oblong-conic, wreathed, six-keeled, each with two smaller keels, three-celled, crowned with the dry corol.

SEEDS innumerable, like fine dust, affixed to the Receptacle with extremely fine hairs, which become thick wool

Scapes incurved, solitary, from the cavity of the leaf, at most seven-flowered, pedicels

pedicels alternate. Petals milk-white externally, transparent, brown within, yellow-spotted. Upper lip of the nectary snow-white, under lip rich purple, or light crimson, striated at the base, with a bright yellow gland, as it seems, on each process. The flowers gratefully fragrant and exquisitely beautiful, looking as if composed of shells, or made of enamel, crisp, elastic, viscid internally. Leaves sheathing, opposite, equally curved, rather fleshy, sword-form, retuse in two ways at the summit, with one acute point. Roots fibrous, smooth, flexible, shooting even from the top of the leaves. This lovely plant attaches itself chiefly to the highest *Amras* and *Bikas*, but it is an air-plant, and lives in a pot without earth or water its leaves are excavated upwards, to catch and retain dew. It most resembles the first and second *Maravaras* of VAN RHEEDE in its roots, leaves, and fruit, but rather differs from them in its inflorescence. Since the parasites are distinguished by the trees on which they most commonly grow, this may in Sanscrit be called *Amaravanda*, and the name *Baculavanda* should be applied to the *Loranthus*, while the *Viscum* of the oak, I am told, is named *Vanda* simply and transcendently, the *Vandar*, or oak, being held sacred.

65 A'MALACI'

SYN. *Tishyap'hala Amrid. Vayast'ha*

VULG.

LINN. *Phyllanthus Emblica*.

66 GAJAPIPALI'

SYN. *Carrappalli, Capaballi, Colaballi, Sreyasi, Pat'ra*. Some add, *Chavica*, or *Chavya*, but that is named in the *Amrasrik* as a distinct plant, vulgarly *Chava*, or *Chay*.

VULG.

VITEL Pippal-jhana, Maulik

Male Flowers

CAL Common *Persianth* four-leaved, leaflets roundish, concave, the two exterior, opposite, smaller, containing from eight to fourteen florets Partial calyx, none

COR None. Nectary, many yellow glands on the pedicel of the filaments

STAM Filaments from eight to eighteen in each floret, connected by a short villous pedicel, thread-form, very hairy Anthers large netted, irregular, inflated, containing the pollen

PIST Rudiments of a germ and style withering

Female Flowers

CAL Common *Persianth* as in the male, but smaller, containing from ten to twelve florets.

Partial calyx none, unless you assume the corolla

COR many petalled, bellied. Petals erect lance-linear, fleshy, covered within, and externally with white hairs Nectary, yellow glands sprinkling the receptacle

PIST Germ oval Style cylindric, curved at the base Stigma headed

PER Berry globular, one-seeded

SEED spherical, smooth

Flowers umbellated, yellow from their anthers Leaves mostly oblong-lanced, but remarkably varying in shape, alternate Both flowers and fruit have an agreeable scent of lemon-peel, and the berries, as a native gardener informs me, are used as a spice or condiment It was from him that I learned the Sanscrit name of the plant but as *bali* means a creeper, and as the *Pippal-jhana*, is a tree perfectly able to stand without support, I suspect in some degree the accuracy of his information, though I cannot account for his using a Sanscrit word without being led to

it, unless he had acquired at least traditional knowledge. It might be referred, from the imperfect mixed flower, to the twenty-third class

67 SA'CO'TA'CA.

SYN

VULG. *Sy'ura*, or *Syaura*

KOEN. *Rough leaved Trophus?*

MALE

CAL *Common imbricated, leaflets six or eight, egged, acute, small, expanding, withering, containing generally from five to seven flowerets*
Partial four-parted, divisions egged, expanded, vilous

COR None, unless you assume the calyx

STAM. *Filaments mostly four (in some, three, in one, five) awl-shaped, fleshy, rather compressed, spreading over the divisions of the calyx, and adhering to them at the point. Anthers double, folded*

The *buds* elastic, springing open on a touch.

FEMALE.

CAL. *Four-parted, divisions egged, concave, pointed, permanent, propped by two small bracts, unless you call them the calyx.*

COR None, unless you give the *calyx* that name.

PIST. *Germ roundish. Style very short, cylindric Sigma long, two-parted, permanent.*

PER *Berry one-seeded, navelled, smooth, somewhat flattened.*

SEED globular, pointed.

LEAVES various, some inverse-egged, some oblong, some oval, pointed, irregularly notched, alternate (some opposite), crowded, crisp, very

rough veined, and paler beneath, smoother and dark above. *Berry*, deep yellow. The Pandits having only observed the male plant, insist that it bears no fruit. Female flowers axillary, from one to four or five in an axil.

68 VIRANA:

SYN. *Viratara*VULG. *Bena, Gandar, Cara*RETZ. *Muricated ANDROPOGON.*ROXB. *Aromatu ANDROPOGON.*

THE root of this useful plant, which CA'LI'DA's calls *usra*, has nine other names, thus arranged in a *Sanskrit* verse

*Abhaya, Natada, Stuya, Amrinala, Jala-sya,
Larmayaca, Laghulya, Avada ha, Ishvara-pat'ha*

It will be sufficient to remark, that *Jala-sya* means aquatic, and that *Avada ha* implies a power of allaying feverish heat, for which purpose the root was brought by GAUTAMI' to her pupil SACONTALA. The slender fibres of it, which we know here by the name of *Chas* or *Khaskhas*, are most agreeably aromatic when tolerably fresh, and, among the innocent luxuries of this climate, we may assign the first rank to the coolness and fragrance which the large hurdles or screens in which they are interwoven, impart to the hottest air, by the means of water dashed through them, while the strong southerly wind spreads the scent before it, and the quick evaporation contributes to cool the atmosphere. Having never seen the fresh plant, I guessed, from the name in VAN RHEEDE and from the *thin roots*, that it was the *Asiatic Acorus*, but a drawing of Dr. ROXBURGH's has convinced me that I was mistaken.

69. SAMI

SYN *Sacut-p'halā, Srva*VULG *Ss en Ba bul.*LNN *Farnesian MIMOSA.*

*Thorns double, white, black pointed, stipular Leaves twice feathered, first, in three or four pairs, then in pairs from fourteen to sixteen Spikes globular, with short peduncles, yellow, perfuming the woods and roads with a rich aromatic odour. A minute gland on the petioles below the leaflets Wood extremely hard, used by the Brahmens to kindle their sacred fire, by rubbing two pieces of it together when it is of a proper age and sufficiently dried Gum semi-pellucid Legumes rather spindle-shaped, but irregular, curved, acutely pointed, or daggered, with twelve or fourteen seeds rather prominent, gummy within Seeds roundish, compressed The gum of this valuable plant is more transparent than that of the *Nilotic* or *Arabian* species, which the Arabs call *Ummul'ghilan*, or Mother of Serpents, and the Persians, by an easy corruption, *Mughilan*.*

SAMI'RA means a small *Sami*, but I cannot learn to what species that diminutive form is applied.

LAYYA'RU (properly *Layala*) signifies *bashful*, or *sensitive*, and appears to be the word engraved on a plate in the *Malabar Garden*, though VAN RHEEDE pronounces it LAURI. There can be no doubt that it is the *swimming* MIMOSA, with *sensitive* leaves, root inclosed in a spungy cylinder, and flowerets with only ten filaments LINNÆUS, by a mere slip, has referred to this plant as his *Dwarf ASCYTHOMENE*; which we frequently meet with in India.—See 9 H M tab 20 The epithet *Layala* is given by the *Pandits* to the *Modest MIMOSA*

70. CHANDRACA -

SYN. *Chandrapushpa*

VULG *Cithuta Chand*, or *Moonies*

RHEDE *Syuanma Ameliodi*, 6 H M t 47.

LINN *Serpent OPHIOXYLUM*.

CAL. Perianth, five-parted, small, coloured, erect, permanent; *drujous* egged, acutish.

COR Petal, one. Tube very long in proportion, jointed near the middle, gibbous from the enclosed anthers, above them, rather funnel-form Border five-parted, *drujous* inverse-egged, wreathed.

PIST Germ above, roundish. Style thread form. Stigma irregularly headed, with a circular pellucid base, or nectary, extremely viscid

PER Berry mostly twinned, often single, roundish, smooth, minutely pointed, one-seeded.

SEED on one side flattish, or concave, on the other, convex.

Flowers fascicled Bracts minute, egged, pointed, coloured. Tube of the coroll light purple, border small, milk-white. Calyx first pale pink, then bright carmine. Petals narrow-winged Leaves oblong-oval, pointed, nerved, dark and glossy above, mostly three-fold, sometimes paired, often four-fold near the summit, margin wavy Few shrubs in the world are more elegant than the *Chandra*, especially when the vivid carmine of the *petals* is contrasted not only with the milk-white coroll, but with the rich green *berries*, which at the same time embellish the fascicle the mature berries are black, and their pulp light purple The *Bengal* peasants assure me, as the natives of *Malabar* had informed RHEDE, that the root of this plant seldom fails to cure animals bitten by snakes, or stung by scorpions, and, if it be the plant, supposed to assist the *Nacula*, or *VIVERKA Ichneumon*, in his battles with serpents,

serpents, its nine synonyms have been strung together in the following distich

Naculi, *Surasa*, *Rasnd*, *Sugandha*, *Gandhanaculi*
Naculeshita, *Bhuyangacshi*, *Ch'hatrica*, *Stevohd*, *nara*

The vulgar name, however, of the ichneumon-plant is *Risan*, and its fourth *Sensoris* appellation signifies well-scented, a quality which an ichneumon alone could apply to the *Ophiozylon*, since it has a strong, and rather fetid odour. The fifth and sixth epithets, indeed, seem to imply that its scent is agreeable to the *Nacula*, and the seventh (according to the comment on the *Amaracosh*) that it is offensive to snakes. It is asserted by some, that the *Risan* is no other than the Rough *Indian Achimanthes*, and by others, that it is one of the *Indian Aristolochias*. From respect to LINNÆUS, I leave this genus in his mixed class, but neither my eyes, nor far better eyes than mine, have been able to discover its male flowers, and it must be confessed, that all the descriptions of the *Ophiozylon*, by RUMPHIUS, BURMAN, and the great botanist himself, abound with erroneous references, and unaccountable oversights.

71 PIPPALA

SYN. *Bodhi-drava*, *Chala-dala*, *Cunjard'sanas*, *Anvattha*.

VULG. *Pippal*.

LINN. *Holy Ficus* but the three following are also thought *holy*. Fruit small, round, axillary, sessile, mostly twin. Leaves hearted, scalloped, glossy, dagged, petioles very long, whence it is called *chaladala*, or the tree with tremulous leaves.

72. UDUMBARA

SYN. *Jantu-phalo*, *Yagyanga*, *Hemadugdhesu*.

VULG. *Dumber*

LINN *Racemed Ficus*

Fruit peduncled, top-shape, navelled racemed

Leaves egg-oblong, pointed, some hearted, obscurely sawed, veined, rough above, netted beneath. VAN RHEEDE has changed the *Sanskrit* name into *Roembadoe*. It is true, as he says, that minute *ants* are hatched in the ripe fruit, whence it is named *Jantu-p'hala*, and the *Pandits* compare it to the *Mundane Egg*.

73 PLACSHA

SIN *Jati, Purcari*

VULG *Purcari, Purcar*

LINN *Indian Ficus* citron-leaved, but all four are *Indian*

Fruit sessile, small, mostly twin, crowded, whitish

Leaves oblong, hearted, pointed, with very long slender petioles.

74 VATA

SIN *Nyagrudha, Bahupat*

VULG *Ber*

LINN. *Bengal Ficus*, but all are found in this province, and none peculiar to it.

Fruit roundish, blood-red, navelled, mostly twin, sessile *Calyx* three-leaved, imbricated

Leaves some hearted, mostly egged, obtuse, broadish, most entire. *Petioles* thick, short, branches radicating

THE *Sanskrit* name is given also to the very large *Ficus Indica*, with radiating branches, and to some other varieties of that species VAN RHEEDE

RHEEDE has by mistake transferred the name *Aswatha* to the *Placsha*, which is never so called.

75 CARACA

SYN *Bhawana, Ch'hairdita.*

VULG.

LINN. *Fungus Agarick*

THIS and the *Phallus* are the only fungi which I have yet seen in India. The ancient Hindus held the fungus in such detestation, that YAMA, a legislator, supposed now to be the judge of departed spirits, declares " those " who eat mushrooms, whether springing from the ground, or growing on " a tree, fully equal in guilt to the slayers of *Brahmens*, and the most despi- " cable of all deadly sinners "

76 TALA

SYN *Tmaridyan*

VULG. *Tal, Palmeira*

LINN. *BOEAASSUS.*

THIS magnificent palm is justly entitled the king of its order, which the Hindus call *Tma Druma*, or grass-trees VAN RHEEDE mentions the bluish, gelatinous, pellucid substance of the young seeds, which, in the hot season is cooling, and rather agreeable to the taste, but the liquor extracted from the tree is the most seducing and pernicious of intoxicating vegetable juices When just drawn, it is as pleasant as *Pouhon* water, fresh from the spring, and almost equal to the best mild *Champagne*. From this liquor, according to RHEEDE, sugar is extracted, and it would be happy

happy for these provinces, if it were always applied to so innocent a purpose.

77. NA'RICE'LA

SYN. *Lingala*.

VULG. *Nárgil*, *Néyil*.

LINN. *Nut-bearing Cocos*.

Of a palm so well known to Europeans, little more needs be mentioned than the true *Anatic* name. The water of the young fruit is neither so copious, nor so transparent and refreshing as *Bengal*, as in the rice of *Hissar*, where the natives, who use the unripe nuts in their cookery, take extreme care of the trees.

78 GUVA'CA

SYN. *Ghond*, *Piga*, *Cramuca*, *Copua*

VULG. *Supári*

LINN. ARECA *Catechu*.

THE trivial name of this beautiful palm having been occasioned by a gross error, it must necessarily be changed, and *Catæchæ* should be substituted in its place. The impounded juice of the MIMOSA *Catæchæ* being vulgarly known by the name of *Catæk*, that vulgar name has been changed by Europeans into *Catechu*; and because it is chewed with thin slices of the *Udulga*, or *Areca*-nut, a species of this palm has been distinguished by the same ridiculous corruption.



A Ground Plan of the Great Pyramid
with a diameter shown by a line 1200 paces long

C. H. Monat 1879

XVIII

A DESCRIPTION OF THE COTTAH MINAR

BY FENYON JAMES T. BLUNT.

THIS base of the *Cotta Minar*, is a polygon of twenty-seven sides and rises upon it in a circular form. The diminution of the cornice is in a good proportion. I do not mean to say that the architect followed any established rule, for it does not appear that there is in my country, were tied down to rules; for although several instances of the diminution in their towers are general they do not well

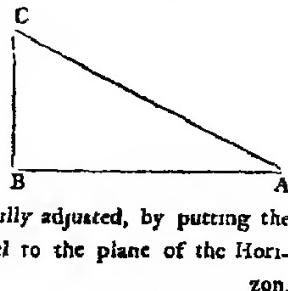
The lower part of the tower is fluted into a number of small arches and in each division, upon which is written in, or cut into the stone, the name of the supposed to contain the age of the building, in a height of the building, from the ground to the top, the tower at 180, in the year 1620, in the beginning of the reign of Shah Jahan, the pillar is built of masonry, and lime mortar to the middle, where ends "The balcony is supported by brackets, and they had small battlements or crenellations, preventive from people who may fall off them from the balcony, likewise as an ornamental purpose to the building, from the 1620; excepting a few considerable ornaments, this is all true, and Cotta Minar is now in a ruined state, and the due when it is completed is said to be in 1630.

of much disappointment, that I could not approach sufficiently near to the base to observe it; but it was situated at such a height, as to put it out of my power, and the result to the difficulty is, that there is not a single book or wood of any kind, induced in that part of the country, calculated to serve a scholar's use with.

An irregular spiral staircase, leads from the bottom, to the summit of the Minar, which is crowned with a majestic Cupola of red Granite, there are many openings during the ascent, for the admission of light and air at each balcony, an opening to allow of people walking into them, but I found the battlements in many parts entirely ruined, and those that were standing in such a decayed state, as to render it a matter of some danger to venture out from the stair-case.

The entire height of the Cuttab Minar is 17 feet and six inches. I ascertained it by measuring a direct line from the top, and, as it may be a matter of some satisfaction to see that it is done with precision, I annex the Trigonometrical calculation.

The Base AB being measured in a right line from the bottom of the Minar, was found to be 462 feet and six inches, twenty-four feet one inch, the semi-diameter of the Base of the Minar being added to it, gave a line of 426 feet and seven inches from the centre of the Pillar. At the extremity of the Base A, a Theodolite was placed, and previously being carefully adjusted, by putting the line of collimation in the Telescope, parallel to the plane of the Horizon,



zen, the angle BAC was observed to be twenty-nine degrees, thirty-nine minutes, thence the height of the *Cuttub Minar*, was found to be 242 feet and nearly six inches

By Plane Trigonometry

The Base $AB = 242$ ft, seven inches say 486, 5, the angle BAC is given $29^{\circ} 39'$, the angle ABC is right or 90° , sum of all angles in all triangles being equivalent to 180° less 90° or 100 degrees by subtracting the sum of the two angles A and B from 180° . From the sum of three angles in the triangle ABC , the angle ACB will be found

$$\angle CAB = 29^{\circ} 39'$$

$$\angle ABC = 90^{\circ}$$

$$180 - 119^{\circ} 39' = 60^{\circ} 21' \Rightarrow \text{Angle } ACB$$

Then as the angle ACB is to the side AB , so is the angle CAB to the side CB , or height of the *Minar*.

$$\begin{array}{r}
 \text{Log of } ACB \quad \text{Log of } CAB \quad \text{Log of } C-B \quad \text{Log of } A \\
 9.94905 \quad 6.4942 \quad 9.69434 \quad 248.5 \\
 + 2.62942 \\
 \hline
 10.82376 \\
 - 9.93905 \text{ feet} \\
 \hline
 2.38471 = 242.5
 \end{array}$$

The *Cuttub Minar* is situated about nine miles bearing $S 16^{\circ} W$ from the *Jumma Masjid*, that was erected by the Emperor Shah Jahan in the present city of *Delhi*, and appears to have been designed for a *Minaret* to a most stupendous mosque, which never was completed, a considerable part of the second and corresponding *Minaret* is to be seen, and many other parts of this intended immense building, particularly of the arches

The mosque seems to have been abandoned in this unfinished state, from causes at that time entirely unknown; perhaps the original designer of the fabrick found human life too short to see it accomplished during his existence. It may not appear a matter of much surprize that the wealth of one man should be found inadequate to so arduous an undertaking, however opulent and exalted in life his situation may have been. The tomb of CUTTUP SHAW, at whose expence the *Minar* is said to have been built, is to be seen a few hundred yards to the westward of it. the tomb is rather inconsiderable and of mean appearance, when compared with the many more magnificent mausoleums that are to be met with in the extensive ruins of *Delhi*.

CUTTUP SHAW came to the throne of *Delhi* in the Mussulman year 603, corresponding with the *Christian* era 1205, and died in the Mussulman year 607, or *Christian* era 1210, a reign of only five years, and certainly a period not sufficient to erect so large a building as a mosque, to correspond in magnitude and grandeur with the *Minar* and other parts of the structure that were began upon, adjoining to it.

IT MAY with some degree of reason be inferred that a stop was put to the building of the mosque at the decease of CUTTUP SHAW, and from which period we may date the *Minar* to have been completed, conformably with this inference, it is ascertained that the *Minar* has stood at least 580 years. Excepting the unavoidable and irresistible effects of lightning, from the goodness of the materials, and the excellent judgment with which they appear to have been put together, there is every reason to suppose it would have withstood the ravages of time, for succeeding generations to behold, with admiration and astonishment, for yet many ages.

ASTRO-

XIX.

ASTRONOMICAL OBSERVATIONS

MADE ON A

VOYAGE TO THE ANDAMAN AND NICOBAR ISLANDS.

BY LIEUTENANT R H COLEBROOKEDIAMOND ISLAND, near *Cape Negrais*, 1789

December 14th	By the Sun's Meridian Altitude taken }						Latitude 15° 49' 33"
	-	-	-	-	-	-	
By Captain Kyn,	-	-	-	-	-	-	15 49 43
							Mean 15 49 38

CARNICOBAR ISLAND, 1790 On board the *Atalanta* Sloop of War,
about one mile from the western shore

January 2d Sun's mer alt 57° 44' 40" Lat 9° 8' 52"

BEARINGS

Northernmost point of the Land, N 16° E

Southernmost point of do S 81 E

Nearest shore - N 70 E.

DANISH POINT, at *Nancotory*, 1790 Observations for the Latitude,
taken near the Flag Staff

	O, or Stars	Doub Mer	Altis	Latitude N
January 11	Capella, -	104° 33'	0	80 1' 51'
	Canopus, -	58 48	0	8 2 17
20	α Persoi, -	97 54	30	8 3 31
21	Ω's lower limb,	123 42	0	8 3 27
	Capella, -	104 34	30	8 2 36
	3 Aurigae, -	106 18	10	8 2 49
23	Capella, -	104 34	20	8 2 35
	3 Aurigae, -	106 17	30	8 2 29
Mean of the whole				8 2 26, 8

If the first observation by Capella be rejected, the mean of the remaining seven will be $8^{\circ} 2' 38''$

The observations were made with a fine Sextant by TROUGHTON, and Artificial Horizon. The refractions applied in computing these, and all the following observations, were taken from Monsieur LE GENTIL's Table, published in his "Voyage dans les Mers de L'Inde." The declinations of the Stars were taken from Table 7th of the requisite Tables, and partly from DUNN's Catalogue.

OBSERVATIONS for Longitude, by the Eclipses of JUPITER's Satellites

Apparent Time 1790		Sat	Weather	Imm or Emer	Longitude in Time	Longitude in Degrees
D	H I "				H I "	o I "
Jan 11	18 17 44	1	Clear	Imm	6 18 25	93 21 15
20	8 36 51	1	Do.	Imm	6 18 27	93 21 45
23	11 5 13	2	Do.	Imm	6 13 26	93 21 30

Mean Longitude of *Danish Point*, East from Greenwich, $93^{\circ} 21' 30''$
The Telescope was a Refractor, magnifying from 80 to 90 times

PUMBAUK ISLAND, on board the Experiment Cutter. *The Southern Extremity of the Island bearing East*

February 10th O's Mer Alt. $67^{\circ} 18' 30''$

Do. by Capt KYD, $67^{\circ} 18' 0''$

Mean $67^{\circ} 18' 15''$ Latitude $67^{\circ} 18' 15''$

CARNICOBAR ISLAND

February 15 O's Mer Alt $68^{\circ} 5' 30''$ Latitude $68^{\circ} 5' 31''$

The Southernmost point of the Island bore E $\frac{1}{2}$ S 1 mile distant

February 16 O's Mer Alt. $68^{\circ} 26' 15''$

Do. by Capt KYD, $68^{\circ} 26' 30''$

Mean $68^{\circ} 26' 28''$ Latitude $68^{\circ} 26' 24''$

Southernmost point of the Island bore W $\frac{1}{2}$ S $\frac{1}{2}$ mile distant

CHATHAM

CHATHAM ISLAND in Port Cornwallis * at the Great Andaman, 1790

OBSERVATIONS FOR LATITUDE

Date	Names of Stars	D Alt. on Mer	Latitude.
February 23	Canopus,	51 31 0	11 43 0
24	3 Aurigæ,	113 36 30	11 42 5
	Ursæ Majoris,	77 40 0	11 41 49
26	3 Aurigæ,	113 36 0	11 41 50
	Canis Majoris,	99 15 0	11 41 23
	Can Maj	104 31 0	11 40 49
28	3 Aurigæ,	113 36 20	11 42 0
	Canopus,	51 31 10	11 40 55
March 2	Canis Maj	99 15 30	11 41 8
	Sirius,	123 46 30	11 40 50
9	Argo Navis,	68 14 40	11 40 37
11	E Argo Navis,	77 48 30	11 41 40
	3 Ursæ Majoris,	88 26 30	11 42 5
Mean			11 41 28.9

OBSERVATIONS for LONGITUDE, by the ECLIPSES of JUPITER'S SATELLITES

Apparent Time. 1790.			Sat	Weather	Imm or Emer	Longitude in Time	Longitude in Degrees
D	H	"				H	"
February 24	13	31 56,5	2	Clear,	Emer	6 10 24,5	92 36 7,5
26	14	45 59	1	Ditto,	Emer	6 10 35	92 38 45
March 7	11	10 43,5	1	Ditto,	Emer	6 10 34,5	92 38 37,5
14	8	7 41,5	2	Ditto,	Emer	6 10 38,5	92 38 22,5
14	13	6 38,5	1	Ditto,	Emer	6 10 19,5	92 34 52,5
16	7	85 84	2	Ditto,	Emer	6 10 10	92 32 80
						Mean	92 36 82,5

* The Old Harbour so called

An excellent Chronometer by ARNOULD was used in observing the time, to correct which, frequent observations of the sun and stars were taken. The former by equal or corresponding altitudes, observed before and after noon, to which the proper equations were applied and in the latter case by taking several altitudes of a star east, and one west, a few minutes before and after the observation these were calculated separately, and the mean of the results was applied to the correction of the watch. The apparent time, as deduced from the sun or stars, agreed in general within a second or two.

XX

ASTRONOMICAL OBSERVATIONS

MADE ON A

SURVEY THROUGH THE CARNATIC AND MYSORE COUNTRY.

BY LIEUTENANT R. H. COLEBROOKE.

OBSERVATIONS FOR LATITUDE

Date.	Names of Stars.	Mer Alt observed.	Latitude de- rived	Mean Latitude	Bearing and Dis- tance of the near- est place
1791. Feb 2	Capella, Canopus,	57 19 15 13 4 48			
	Aurigæ,	24 28 0 13 8 34			
3	Canis Majoris, Sirius,	58 10 0 13 3 52	13 3 57		
	Capella,	59 5 0 13 3 88			
15	Aurigæ,	58 27 0 13 12 33			
6	Sirius,	60 80 10 13 3 53			
16	Capella,	57 19 45 13 13 87	13 13 14, 6		
3	Aurigæ,	58 20 20 13 12 34			
16	Canis Majoris, Sirius,	58 18 0 13 11 52			
3	Capella,	58 56 0 13 12 38	13 12 19		
18	Sirius,	60 21 37 13 12 57			
	Capella,	57 25 80 13 11 3			
	Canopus,	54 14 50 13 11 46			
3	Aurigæ,	58 18 20 13 12 18	13 12 38, 7		
	Sirius,	60 22 80 13 11 34			
20	Capella,	57 16 45 13 12 19			
	Sirius,	60 21 35 13 12 49			
21	Aurigæ,	58 19 30 13 12 22	13 12 51		
	Sirius,	60 21 30 13 12 24			
3	Aurigæ,	58 19 20 13 13 12			
March 13	Aurigæ, Sirius,	58 11 0 13 4 52	13 4 35, 5	On coast, N, *	
		60 29 45 13 4 59		(1 m. if d)	

ASTRONOMICAL OBSERVATIONS MADE IN

Date	Names of Stars	Mer Alt observed	Lan de de rived	Mean Latitude	Bearing and Dis- tance of the near est place
May 7 ^a	Ursæ Majoris,	39 36 30 12 27 59		39 36 30 12 27 59	Satanoor, N b E 2 f d
13 ^a	Ursæ Majoris,	39 34 15 12 25 44		39 34 15 12 25 44	Anakeere Fort, S E 1 f d
	Do by Lieut Boshby,	39 34 12 12 25 41		39 34 12 12 25 41	
25 ^y	Ursæ Majoris,	47 35 45 12 26 14		47 35 45 12 26 14	
	Ursæ Majoris,	44 45 40 12 26 19		44 45 40 12 26 19	Kanambaddy, W 1 m d
	Ursæ Majoris,	45 22 0 12 26 43		45 22 0 12 26 43	
80 ^a	Ursæ Majoris,	52 11 50 12 32 47		52 11 50 12 32 47	Toadawor Vill N N W 6 f d
	Centauri,	42 8 20 12 32 39		42 8 20 12 32 39	
June 11 ^a	Ursæ Majoris,	46 45 45 12 46 2		46 45 45 12 46 2	
	Ursæ Majoris,	52 24 30 12 45 24		52 24 30 12 45 24	Yekary Village, N 27 1/2 4 f d
	Centauri,	41 56 10 12 45 1		41 56 10 12 45 1	
17 ^a	Ursæ Majoris,	52 25 15 12 46 9		52 25 15 12 46 9	Binnelly Village, W 4 f d
	Centauri,	41 55 0 12 46 7		41 55 0 12 46 7	
19 ^a	Urs Maj	52 27 15 12 48 9		52 27 15 12 48 9	Hochardroog N 74 W 4 m d
	Centauri,	41 53 20 12 47 47		41 53 20 12 47 47	
29 ^a	Antares,	51 6 0 12 57 33		51 6 0 12 57 33	Maggry Pagoda with the Bull N 60 E 1 f d
	Draconis,	40 59 40 12 57 10		40 59 40 12 57 10	
July 21 ^a	Scorpius,	40 27 30 12 37 23		40 27 30 12 37 23	Anchury Drogg N 38 E 3/4 m d
	Draconis,	51 7 30 12 38 1		51 7 30 12 38 1	
25 ^a	Antares,	51 29 0 12 34 30		51 29 0 12 34 30	Needurgum N 70 IV 1/4 f d
Sept 29 ^a	Cygni,	58 31 80 13 8 41		58 31 80 13 8 41	
	Cygni,	58 36 45 13 8 47		58 36 45 13 8 47	
	Grus,	58 38 30 13 8 27		58 38 30 13 8 27	
30 ^a	Cygni,	58 31 35 13 8 46		58 31 35 13 8 46	
Oct 1 ^a	Cygni,	58 36 45 13 8 47		58 36 45 13 8 47	
2 ^a	Fomalhaut,	46 8 25 13 8 59		46 8 25 13 8 59	
3 ^a	Fomalhaut,	46 8 20 13 9 4		46 8 20 13 9 4	
6 ^a	Grus,	58 54 50 13 9 19		58 54 50 13 9 19	
Nov 26 ^a	Fomalhaut,	46 20 0 12 57 36		46 20 0 12 57 36	
	Cassiopeia,	47 34 80 13 57 20		47 34 80 13 57 20	
	Do by Capt Kyd	47 35 0 12 57 50		47 35 0 12 57 50	In the Area of Ban galore Palace
	Cassiopeia,	43 50 0 12 57 53		43 50 0 12 57 53	
Dec. 16 ^a	O's Lower Limb,	58 22 35 13 1 8		58 22 35 13 1 8	
	Cassiopeia,	47 88 30 13 1 21		47 88 30 13 1 21	Sandicouping Fort E 4 f d
	Eridani,	35 51 30 13 0 59		35 51 30 13 0 59	
	Persei,	68 55 45 13 1 84		68 55 45 13 1 84	

Date	Names of Stars	Mer Alt. observed	Latitude derived	Mean Latitude	Bearing and Dis- tance of the near- est place
1791 Dec 27 ^a	Cassiopeæ,	43 49 46 ¹² 57 40			Maggy Pagoda, with the Bull, N 76 W 4 f. dist
	Eridani,	35 55 15 ¹² 57 14			
	α Persei,	33 52 7 ¹² 57 57		12 57 27	
	ε Eridani,	35 55 20 ¹² 57 9			
28 ^a	α Persei,	33 52 0 ¹² 57 50			
	Ω's Lower Limb,	53 40 15 ¹² 57 19			
				0 0 " "	
1792 Feb 20 ^b	Aurigæ,	57 34 0 ¹² 27 53			Camp before Se ringapatam, the great Pagoda bearing from the Place of observa- tion S 2° W 2½ miles distant.— Lat of great Pa- goda derived 12° 25 27
	Canis Maj.	59 40 15 ¹² 27 51			
	Sirius,	61 6 15 ¹² 27 43			
	21 ^b Aurigæ,	57 34 10 ¹² 28 8			
	Canis Maj.	59 41 10 ¹² 27 26			
	Sirius,	61 6 0 ¹² 27 58			
	29 ^b Aurigæ,	57 34 10 ¹² 28 3		12 27 52, 2	
	30 ^b Aurigæ,	57 34 15 ¹² 28 8			
	Sirius,	61 6 25 ¹² 27 33			
	4 ^b Ursæ Majoris,	46 28 0 ¹² 28 3			
March 3 ^b	Ursæ Maj.	58 7 0 ¹² 27 42			
	Canis Maj.	48 51 0 ¹² 27 45			
	Canis Maj.	51 28 0 ¹² 28 11			
April 19 ^c	Ursæ Majoris,	39 38 30 ¹² 29 29			Tripatna Fort, S E 1 m d.
	Ursæ Maj.	40 3 20 ¹² 54 30			
	Centauri,	27 33 15 ¹² 54 34		12 54 32	

T t 2

**OBSERVATIONS for Longitude, by the ECLIPSES of JUPITER'S
SATELLITES**

Date and apparent Time of the Observations	Sat	Imm or Year	Wet her	Longitude in Time	Longitude in D g e	Bearing and Dis- tance of nearest Place
1791	D H ' "			H '	° " "	
Feb 22 12 38 42	1	Imm	clear	5 14 10	78 32 30	{ Palmanau S 6° E 1 m d
Mar 3 8 54 3	1	Imm	ditto	5 10 28	77 37 0	Oscoota N 7° W 1 1/2 m d
May 27 10 9 42	1	Emer	windy	5 6 24	76 36 0	{ Singaparam great Pagoda S 8° E 5 1/2 d
June 12 8 25 19.5	1	Emer	clear	5 6 52, 5	76 43 7.5	Yekity Vil N 27° E 4 f d
19 10 18 54	1	Emer	ditto	5 7 17	76 49 15	Hosho droog N 74 E 4 m d
1792						
Mar 12 13 36 9	1	Imm	ditto	5 6 12	76 33 0	{ Camp before Se ringaparam Pa goda, bearing S
19 15 32 3	1	Imm	ditto	5 6 8	76 38 0	1 W 2 1/2 m d
21 10 0 54	1	Imm	ditto	5 5 57	76 29 15	

Magnifying Power of the Telescope, 80 to 100 times Achromatic.

XXI

TABLE OF LATITUDES AND LONGITUDES
OF SOME
PRINCIPAL PLACES IN INDIA,
DETERMINED FROM ASTRONOMICAL OBSERVATIONS

BY MR RUBEN BURROW,
COMMUNICATED BY LIEUT R H COLEBROOKE.

PLACES	LATITUDE N	LONGITUDE ¹ IN TIME	REMARKS
RUSSAPUGLY NEAR CALCUTTA	22° 30' 20"	5 ^h 53' 30'	Mr BURROW'S RESIDENCE
Bygonbarry,	24 48 14	6 0 46	The old Factory on the Bar- rampooter River
Dewangunge,	25 9 31	5 58 36	
Tealcopee,	25 19 16	5 58 34	
Shealdoo Nullah,	25 58 8	5 59 17	At the Conflux with the River
Bakkamarchor,	26 1 44	5 59 43	
Kazycottah,	26 9 4	6 0 83	
Goalparra,	26 11 21	6 2 9	The Kotie or Factory
Doobarey,	26 1 6	5 59 42	The Mount
Dadnachorr,	25 3 36		The large Tree
Pookereah,	24 54 6	5 59 45	
Sagow,	24 35 41		Between two large Trees, Cen- ter of the Town
Tingarchorr,	24 18 6	6 2 15	Near the mouth of the Bannar River
Digganabad,	24 0 38		
Ameerabad,	23 55 31	6 3 7	Mouth of the Nullah
Sampmarray,	23 40 16	6 2 30	
Remately Nulla,	22 55 25	6 2 54	Conflux with the Megna River
Rajegunge,	22 38 7	6 0 38	End of the Town near Soota- loory
Coweally,	22 37 30	5 59 55	
Gonganagor,	22 37 30	5 59 47	

At Cheduba and on the Arracan Coast

PLACES	LATITUDE	LONGITUDE	Spot of Observation and Remarks
Tree Island,	18° 27' 30"	61° 16' 12"	
Cheduba Flag Staff,	18° 53' 8"	61° 14' 28"	
House Island,	18° 56' 47"	61° 14' 19"	Center Rock
Makawoody,	18° 50' 43"	61° 15' 11"	Fort of Cheduba.
Jy,	19° 5' 46"	61° 15' 11"	Fort of Tumbiah.
Dumsil,	18° 57' 40"	61° 16' 7"	An Island in the Cantabuda, or Catabida River
Jykuna Island,	18° 44' 40"	61° 15' 48"	North end of the Island
Chagoo Rock,	18° 48' 51"		Near the mouth of the Catabida River
Kyaunimo,	18° 54' 36"	61° 16' 0"	A Town in the Catabida Harbour
Cedar's Point,	18° 52' 58"	61° 15' 21"	A remarkable point in Cheduba

On the Ganges, &c

Nuddea,	23° 25' 49"	85° 53' 32"	junction of the Hoogly and Cassimbazar Rivers
Sackey Fort,	23° 40' 0"		
Gour,	24° 53' 0"	85° 52' 13"	The ancient round Tower
Rajemahl,	25° 3' 15"	85° 50' 56"	The Marble Palace,
Colgong,	25° 16' 6"	85° 48' 39"	Mr CLEVELAND's Bungalow.
Mongheer,	25° 22' 57"	85° 45' 57"	Rocky point of the Fort
Patna,	25° 36' 3"	85° 41' 2"	Chelchidoon or ALAVEROI's Palace near the Fort
Bankipoor,	25° 37' 38"	85° 40' 40"	Granary
Buxar,	25° 34' 27"	85° 35' 59"	Fort Flag Staff
Mouth of the Cammaissa River,	25° 30' 20"	85° 33' 31"	
Mouth of the Goont,	25° 31' 25"	85° 32' 36"	
Oojar,	25° 35' 21"		
Benares,	25° 18' 36"	85° 8' 59"	The Hindoo Observatory
Chunar Fort,	25° 7' 40"	85° 8' 22"	Flag Staff
Chunar Camp,	25° 6' 30"	85° 8' 31"	Captain BOUGH's Bungalow
Tonse River,	25° 16' 16"	85° 28' 0"	Conflux with the Ganges
Allahabad,	25° 25' 50"	85° 27' 24"	S E Corner of the Fort at Preyag
Correichcottah,	25° 33' 16"	85° 26' 28"	Close to the Nulla, highest part the Town

PLACES	LATITUDE	LONGITUDE	Spot of Observation and Remarks
Surajepoor,	26° 10' 24"	5° 31' 58"	River side near the middle of the Town
Jaujesmow,	26 26 25	5 21 15	Seebamot on the Hill
Caunpour,	26 30 28	5 20 54	Magazine Gaut
Joognagpoor,	26 44 46	5 20 18	At the Gaut
Nanamow,	26 53 0	5 20 0	At the old Stone Gaut.
Mendi Gaut,	27 0 33	5 19 30	
Canouge,	27 8 30	5 19 12	The Fort.
Cussunkhore,	27 8 56	5 19 5	Seebamot on the Hill
Kessaspore,	27 18 25		
Sungrumpore,	27 14 28	5 18	1 The Gaut
Futtryghur,	27 23 11	5 18	2 The Fort
Jillalabad,	27 43 56	5 18	3 The Fort
Berimutana,	27 52 28	5 18	4 The Well
Kheerpoor,	27 58 22	5 18	5 Near the Old Fort
Cutterah,	27 1 47	5 18	6 The Brick Fort
Jessooah,	28 8 17	5 17	7 Well
Fereedpour,	28 12 54	5 17	8 The Fort
Bareilly,	28 22 5	5 17	9 The Fort
Lumberah,	28 27 39		
Hafizunge,	28 29 40	5 17	10 The Serai
Nabobunge,	28 32 29	5 18	11
Lillowry,	28 36 38		
Pillibeat,	28 37 42	5 18	12 The Eedgaw
Do Hafiz Musjid,	28 38 30	5 18	13 To the center of Pillibeat
Gowneerah,	28 87 35		
Barrower,	28 36 58	5 17	14 N E end of the Town on the Banks of the Bhagul
Shair Ghur,	28 38 50	5 17	15 Fort
Bourkah,	28 43 29	5 16	16
Rampour,	28 48 50	5 15	17 N W Gate of the City
Morsadabad,	28 50 24	5 14	18 Center of Rustum Khan's Palace
Mahmudpore,	28 42 1	5 14	19
Sumbul,	28 35 14	5 13	20 The ancient Fort Gate of Kol- lankee Ootar
Boojeopor,	28 56 39	5 14	21 Seeb's Temple in the Tope
Bhyrah,	29 2 11	5 15	22
Cossipore,	29 12 44	5 15	23 Fort
Hazaretnagar,	29 12 5	5 14	24 Fort
Raur,	29 21 13	5 14	25 The Hindoo Mott through the Town
Afzul Ghur,	29 23 45	5 14	26 Palace to the Fort

PLACES	LATITUDE	LONGITUDE.	Spot of Observations and Remarks
Sheercote,	29° 19' 48"	N 5 19'	Principal Mosque in the City
Nundeenah,	29 27	16 5 13 19	Brick Fort
Nadjbabad,	29 36	46 5 12 52	White Mosque
Patter Ghur,	29 86	31 5 12 59	High Gate of the Fort.
Chundny walla,	29 58	8	
Asoph Ghur,	29 44	14 5 12 19	Center of the Fort
Borunwalla,	29 47	26	This Vil. is in the large Jungle
Loddong,	29 50	28	Where the Camp was in 1774
Joogiywalla,	29 58	0 5 12 16	Bamboo Fort.
Chandy Gaur,	29 56	24 5 12 16	Stone Temple opp Hurdwar.
Hurdwar,	29 57	9 5 12 9	The Northernmost Building in the Town
Congree,	29 53	19	Also called Hyder Ghur
Nagal,	29 39	40 5 12	16 The Nawab's Artillery Shed
Mundawer,	29 29	5 5 12	2Dowlet Khan's Musjid
Darahagnur,	29 16	49 5 12	3Nidjib Khan's Seray
Chaundpour,	29 13	4 5 12 15	
Amrooah,	28 54	22 5 13 27	Fort of the Sids
Khuntpour,	28 44	29 8 5 12 39	Stone Gate of the Fort
Hussenpour,	28 43	8 5 12	Well of the Town
Serssec,	28 28	52 5 12 37	
Anopshair,	28 22	50 5 12 36	On the steep bank East of the Flag Staff
Donnaree,	28 21	10	Mud Fort
Chandousey,	28 26	51 5 14 45	East Gate of the Town
Bissoole,	28 18	51 5 15	17Doondy Khan's Musjid.
Bunneah,	28 12	29	Village in a Jungle
Budawun,	28 2	39 5 16	Large ancient Mosque of Cut- tub Ld Dicn
Osseheet,	27 48	12 5 16	28 East Gate
Bettour,	26 7	24 5 20	40 Cow Ghaut
Gopalpour,	26 3	49	
Mobarickpour,	25 31	10	
Bogwangolah,	24 20	15 5 22 50	Mouth of the Culculia* River
Fee Cally Dum- duma,	24 1	76 5 55 40	
Pubna,	24 0	12 5 56	27 The Hindoo Temple
Cos- mda,	23 53	47 5 59	
Dacca,	23 43	0 6 1	12 Mr Day, the Chief's House called the Pooshta

* The course of the Culculia or Coss Mda River, no longer a Bahr pagab, but about one mile lower on a between Murshid and Cuttumary, which the rayha been produced by the encroachment of the Ganges.

NOTE BY MR. BURROW

As a more particular account will be given hereafter of the manner in which these Latitudes and Longitudes were deduced, it will be sufficient here to mention, that the Meridian Altitudes of Star from whence the Latitudes were derived, sometimes amounted to forty or thirty, North and South, and very seldom were less than five or six, and those mostly on both sides the Meridian, so that, upon the whole, I believe very few of the foregoing Latitudes can be more than four seconds wrong, perhaps not many of them so much, as the single observations with the Sextant seldom differed from one another more than fifteen or twenty seconds, and very often not half the number As to the Longitudes, it is possible there may in some cases be an error of two or three miles, but I can scarce believe there is any great probability of it, as the observations were made, as well as calculated, in a different and more exact manner than is generally used at present

XXII.

ON SOME

EXTRAORDINARY FACTS, CUSTOMS, AND PRACTICES
OF THE

H I N D U S.

BY THE PRESIDENT

IN the preliminary discourse addressed to the Society by our late President, *Man and Nature* were proposed as the comprehensive objects of our Researches, and although I by no means think that advantage should be taken of this extensive proposition to record every trivial peculiarity of practice, habit, or thinking, which characterizes the natives of *India*, many singularities will be found amongst them which are equally calculated to gratify curiosity, and to attract the notice of the philosopher and politician.

Of all studies, that of the human mind is of the greatest importance, and whether we trace it in its perfection or debasement, we learn to avoid error, or obtain models for improvement, and examples for imitation. In pursuing customs and habits to the principles from which they are derived, we ascertain by the sure rule of experience the effects of natural or moral causes upon the human mind.

The characters of the natives of *India*, notwithstanding all that has been published in *Europe*, are by no means well understood there, and a careful and accurate investigation of them, with a due discrimination of habits and usages, as local or general, would afford a subject for a curious, useful, and entertaining dissertation.

It is not my intention to undertake it I neither profess to have ability, nor have I less regard to the task, and the preceding remarks are offered to the Society, for the purpose only of introducing the recital of some extraordinary facts, customs, and practices of this country, which have occurred to my observation in the course of public duty. If the narrative has too much of the language of office, it may be deemed a sufficient compensation that it is extracted from official documents, and judicial record, and hence has a claim to authenticity.

The inviolability of a *Brahman* is a fixed principle of the *Hindoo*, and to deprive him of life, either by direct violence, or by causing his death in any mode, is a crime which admits of no expiation. To this principle may be traced the practice called *Dberna*, which was formerly familiar at *Bengal*, and may be translated CAPTIVATION OR ARREST. It is used by the *Brahmins* in that city, to gain a point which cannot be accomplished by any other means, and the process is as follows.

THE *Brahman* who adopts this expedient for the purpose mentioned, proceeds to the door or house of the person against whom it is directed, or wherever he may most conveniently intercept him. He there sets down in *Dberna*, with poison, or a poignard, or some other instrument of suicide, in his hand, and threatening to use it if his adversary should attempt to molest or pass him, he thus completely arrests him. In this situation the *Brahmen* fasts, and by the rigor of the etiquette, which is rarely infringed, the unfortunate object of his arrest ought also to fast, and thus they both remain until the instigator of the *Dberna* obtains sati fiction. In this, as he seldom makes the attempt without resolution to persevere, he rarely fails, for if the party thus arrested were to suffer the *Brahmen* sitting in

Dberna

Dharna to perish by hunger, the sin would for ever lie upon his head. This practice has been less frequent of late years, since the institution of the Court of Justice at *Benares* in 1783, but the interference of that Court, and even that of the Resident there, has occasionally proved insufficient to check it, as it has been deemed in general most prudent to avoid for this purpose the use of coercion, from an apprehension that the first appearance of it might drive the sitter in *Dharna* to suicide. The discredit of the act would not only fall upon the officers of Justice, but upon the Government itself.

The practice of sitting in *Dharna* is not confined to male *Brâhmîens* only. The following instance, which happened at *Benares* in the year 1789, will at once prove and exemplify it.

BEEVOO BAI, the widow of a man of the *Brâhmaical* tribe, had a litigation with her brother-in-law *BALKISHEN*, which was tried by arbitration, and the trial and sentence were revised by the court of Justice at *Benares*, and again in Appeal.

The suit of *BEEVOO* involved a claim of property and a consideration of cast, which her antagonist declared she had forfeited. The decision was favourable to her, but not to the extent of her wishes, and she resolved therefore to procure by the expedient of the *Dharna*, as above explained, what neither the award of arbitration nor the judicial decision had granted.

In conformity to this resolution, *BEEVOO* sat down in *Dharna* on *BALKISHEN*, and he, after a perseverance of several days, apprehensive of her death, repaired with her to a *Hindu* temple in *Benares* where they both

continued

continued to fast some time longer. Thirteen days had elapsed from the commencement of Balkishen's arrest, when he yielded the contest, by entering into a conditional agreement with Breuno, that if she could establish the validity of her cast, and in proof thereof prevail on some creditable members of her own tribe to partake with her of an entertainment of her providing, he would not only defray the expence of it, but would also discharge her debts. The conditions were accepted by Breuno, who fulfilled her part of the obligation, and her antagonist, without hesitation, defrayed the charges of the entertainment: but the non-performance of his engagement to discharge her debts, induced Breuno Bua to institute a suit against him, and the practice of the *Dberaa*, with the proofs of it, were thus brought forward to official notice.

IT is not unworthy of remark, that some of the *Pandits*, on being consulted, admitted the validity of an obligation extorted by *Dberaa*, provided the object were to obtain a just cause, or right wickedly withheld by the other party, but not otherwise. Others again rejected the validity of an engagement so extorted, unless it should be subsequently confirmed by the writer, either in whole or in part, after the removal of the coercion upon him.

Of the practice which I have related, no instance exactly similar has occurred to my knowledge in Bengal or Bihar, although Brâhmans, even in Calcutta, have been known to obtain charity or subsistence from Hindus, by posting themselves before the doors of their houses, under a declaration to remain there until their solicitations were granted. The moderation of the demand generally induces a compliance with it, which would be withheld if the requisition were excessive. But I have been credibly informed that instances of this custom occasionally occur in some parts of the Viceroy's dominions, and that Brâhmans have been successfully employed there

to recover claims, by calling upon the debtor to pay them, with a notification that they would fast until the discharge of the debt. The debtor, if he possesses property or credit, never fails to satisfy the demand against him.

ANOTHER practice, of a very singular and cruel nature, is called Erecting a *Koor*. This term is explained to mean a circular pile of wood which is prepared ready for conflagration. Upon this, sometimes a cow, and sometimes an old woman, is placed by the constructors of the pile, and the whole is consumed together. The object of this practice is to intimidate the officers of Government, or others, from importunate demands, as the effect of the sacrifice is supposed to involve in great sin the person whose conduct forces the constructor of the *Koor* to this expedient.

AN instance of this practice occurred in a district of the province of Benares in the year 1788. Three *Brahmins* had erected a *Koor*, upon which an old woman had suffered herself to be placed, the object of temporary intimidation was fully attained by it, and the timely interposition of authority prevented the completion of the sacrifice. It cannot be uninteresting to know the cause which urged the three *Brahmins* to this desperate and cruel resource. Their own explanation is summarily this. That they held lands in partnership with others, but that the public assessment was unequally imposed upon them, as their partners paid less, whilst they were charged with more than their due proportion, they therefore refused to discharge any part of the revenues whatever, and erected a *Koor* to intimidate the government's officers from making any demands upon them. Their sole object, as they explicitly declared, was to obtain an equal distribution of the public assessment between themselves and their partners.

A WOMAN

A WOMAN, nearly blind from age, had in this instance been placed upon the *Koor*—she was summoned to appear before the English superintendent of the province, but absolutely refused to attend him; declaring that she would throw herself into the first well rather than submit. The summons was not enforced.

THIS is the only instance of setting up a *Koor* which had occurred for many years previous to 1788, although the practice is said to have been frequent formerly. No information has reached me of the repetition of this practice in *Benares*, or of the existence of it in any other part of the Company's possessions, nor is it pretended that it was ever general throughout *Benares*, but is expressly asserted to have been limited to a very small portion of that extensive province.

This last mentioned fact is very opposite to that humanity and mildness of disposition by which the author of the historical disquisition, regarding ancient and modern *India*, affirms the inhabitants of this country to have been distinguished in every age. As a general position, liable to particular exceptions, I am not authorized to dispute it—but it must at the same time be admitted, that individuals in *India* are often irritated by petty provocations to the commission of acts which no provocation can justify, and, without reference to the conduct of professed predators, examples may be produced of enormities scarcely credible—the result of vindictive pride, and ungoverned violence of temper.

IN support of these assertions, I shall quote three remarkable instances, attested by unquestionable evidence. In 1791 SOODIBUTTE MIR, a *Brâbârî*, the farmer of land paying revenue and tenant of tax free land, in the province

province of *Benares*, was summoned to appear before a native officer, the deputy collector of the district where he resided. He positively refused to obey the summons, which was repeated without effect; and after some time several people were deputed to enforce the process, by compelling his attendance. On their approaching his house he cut off the head of his deceased son's widow, and threw it out. His first intention was to destroy his own wife, but it was proved in evidence that, upon his indication of it, his son's widow requested him to decapitate her, which he instantly did.

In this case, the process against *Soonishta* was regular, his disobedience contemptuous, his situation in life entitled him to no particular exemption, he had nothing to apprehend from obeying the requisition, and he was certain of redress if injury or injustice were practised upon him.

ANOTHER *Brâhmaṇa*, named *BALOO PAUNDEH*, in 1793, was convicted of the murder of his daughter. His own account of the transaction will best explain it, and his motives, I give it in abstract. That about twelve years before the period of the murder, he, *BALOO*, and another man, were joint tenants and cultivators of a spot of ground, when his partner *BALOO* relinquished his share. In 1793 this partner again brought forward a claim to a share in the ground—the claim was referred to arbitration, and a decision was pronounced in favour of *BALOO*. He consequently reaped to the land, and was ploughing it, when he was interrupted by his opponent. The words of *BALOO* are as follows “I became angry, and “ enraged at his forbidding me, and bringing my own little daughter *AP-*“ *MUNYA*, who was only a year and a half old, to the said field, I killed “ her with my sword.” This transaction also happened in the province of *Benares*.

THE last instance is an act of matricide, perpetrated by BEZCHUK and ADHER, two *Brâbhens*, and zamindars, or proprietors of landed estates, the extent of which did not exceed eight acres. The village in which they resided was the property of many other zamindars. A dispute, which originated in a competition for the general superintendence of the revenues of the village, had long subsisted between the two brothers, and a person named GOWRY, and the officer of Government, who had conferred this charge upon the latter, was intimidated into a revocation of it by the threats of the mother of BEZCHUK and ADHER to swallow poison, as well as to the transfer of the management to the two *Brâbhens*. By the same means of intimidation he was deterred from investigating the complaints of GOWRY, which had been referred to his enquiry by superior authority.

BUT the immediate cause which instigated the *Brâbhens* to murder their mother, was an act of violence, said to have been committed by the emissaries of GOWRY, with or without his authority, and employed by him for a different purpose, in entering their house, during their absence at night, and carrying off forty rupees, the property of BEZCHUK and ADHER, from the apartments of their women.

BEZCHUK first returned to his house, where his mother, his wife, and his sister-in-law, related what had happened. He immediately conducted his mother to an adjacent rivulet, where, being joined in the grey of the morning by his brother ADHER, they called out aloud to the people of the village, that although they would overlook the assault as an act which could not be remedied, the forty rupees must be returned. To this exclamation no answer was received; nor is there any certainty that it was even heard.

heard by any person ; and BEECHUK without further hesitation drew his scymtar, and at one stroke severed his mother's head from her body, with the professed view, as entertained and avowed both by parent and son, that the mother's spirit, excited by the beating of a large drum during forty days, might for ever haunt, torment, and pursue to death Goway and the others concerned with him. The last words which the mother pronounced were, that she would blast the said Goway and those connected with him.

THE violence asserted to have been committed by the emissaries of Goway, in forcibly entering the female apartments of BEECHUK and ADHER, might be deemed an indignity of high provocation, but they appear to have considered this outrage as of less importance than the loss of their money, which might and would have been recovered with due satisfaction, by application to the Court of Justice in Benares. The act which they perpetrated had no other sanction than what was derived from the local prejudices of the place where they resided - it was a crime against their religion and the two brothers themselves quoted an instance of a *Brâhman*, who six or seven years before had lost his cast and all intercourse with the other *Brâbmens*, for an act of the same nature. But in truth BEECHUK and ADHER, although *Brâbmens*, had no knowledge or education suitable to the high distinction of their cast, of which they preserved the pride only, being as grossly ignorant and prejudiced as the meanest peasants in any part of the world. They seemed surprised when they heard the doom of forfeiture of cast pronounced against them by a learned *Pandit*, and openly avowed that, so far from conceiving they had committed a barbarous crime, both they and their mother considered their act as a vindication of their honour, not liable to any religious penalty.

THE Society will observe, with some surprise, that the perpetrators of the several acts which I have related, were *Brabnens*. These facts took place within three districts only of the province of *Benares*, named *Kuntel*, *Buddboor*, and *Aersat Sekur*. I mention these particulars that I may not lead any person into a common error of deducing general conclusions from partial circumstances. In *Bengal* and *Bihar*, where the passions of jealousy, pride, and revenge, sometimes produce very fatal consequences, I recollect no instance where the efforts of their violence have been transferred from the objects which excited it to others that were innocent, as in the preceding cases.

THAT the practice of Infanticide should ever be so general as to become a custom with any sect or race of people, requires the most unexceptionable evidence to gain belief and I am sorry to say that the general practice, as far as regards female infants, is fully substantiated with respect to a particular tribe on the frontiers of *Juanpore* a district of the province of *Benares*, adjoining to the country of *Onde*. A race of Hindus called *Rajkumaris* reside here, and it was discovered in 1789 only, that the custom of putting to death their female offspring, by causing the mothers to starve them, had long subsisted, and did actually then very generally prevail amongst them. The resident at *Benares*, in a circuit which he made through the country where the *Rajkumaris* dwell, had an opportunity of authenticating the existence of the custom from their own confessions he conversed with several all unequivocally admitted it, but all did not fully acknowledge its atrocity; and the only reason which they assigned for the inhuman practice, was the great expence of procuring suitable matches for their daughters, if they allowed them to grow up It is some satisfaction to add, that the custom, though general, was not universal, as natural af-

fection

fection, or some other motive, had induced the fathers of some *Rajeeoomar* families to bring up one, or more, of their female issue, but the instances where more than one daughter had been spared, were very rare. One village only furnished a complete exception to the general custom, and the *Rajeeoomar* informant, who noticed it, supposed that the inhabitants had sworn, or solemnly pledged themselves to each other, to bring up their females. In proof of his assertion in favour of the village in question, he added, that several old maids of the *Rajeeoomar* tribe then actually existed there, and that their celibacy proceeded from the difficulty of procuring husbands for them, in consequence of the great expences attending the marriages of this class of people.

It will naturally occur to the Society to ask, by what mode a race of men could be continued under the existence of the horrid custom which I have described. To this my documents enable me to reply, partly from the exceptions to the general custom, which were occasionally admitted by the more wealthy *Rajeeoomars*, more particularly those who happened to have no male issue, but chiefly by intermarriages with other *Rajepoot* families, to which the *Rajeeoomars* were compelled by necessity.

A PROHIBITION enforced by the denunciation of the severest temporal penalties, would have little efficacy in abolishing a custom which existed in opposition to the feelings of humanity and natural affection; and the sanction of that religion which the *Rajeeoomars* professed was appealed to, in aid of the ordinances of civil authority. Upon this principle an engagement, binding themselves to desist in future from the barbarous practice of causing the death of their female children, was prepared, and circulated amongst the *Rajeeoomars* for their signature, and as it was also discovered that the same custom prevailed, though in a less degree, amongst a smaller tribe of people

people also, within the province of *Basses*, called *Rajbhars*, measures were adopted at the same time, to make them sensible of its impurity, and to procure from them a subscription similar to that exacted from the *Rajkoomars*:

The following is a copy of the engagement which the latter subscribed:—

" WHEREAS it hath become known to the Government of the Honourable English East India Company, that we of the tribe of *Rajkoomars* do not suffer our female children to live; and whereas this is a great crime, as mentioned in the *Brahma Bryant Puran*, where it is said that killing even a *Fetus* is as criminal as killing a *Brahmin*; and that for killing a female, or woman, the punishment is to suffer in the *ark*, or hell, called *Kat Shool*, for as many years as there are hairs on that female's body, and that afterwards that person shall be born again, and successively become a leper, and be afflicted with the *Yaddava*; and whereas the British Government in India, whose subjects we are, have an utter detestation of such murderous practices, and we do ourselves acknowledge, that although customary among us, they are highly sinful, we do therefore hereby agree not to commit any longer such detestable acts; and any among us (which God forbid) who shall be hereafter guilty thereof, or shall not bring up and get our daughters married, to the best of our abilities, among those of our cast, shall be expelled from our tribe, and shall neither eat nor keep society with us, besides suffering hereafter the punishments denounced in the above *Pooras* and *Shaster*. We have therefore entered into this agreement.

" Dated the 17th December, 1789."

A RECORD of the various superstitious ceremonies which prevail throughout Hindustan would form a large and curious volume; but as all the preceding instances which I have related, are taken from transactions in *Banaras*, I cannot refrain from mentioning the superstitious notions of the people of that province regarding the sugar-cane which proves an ignorance that may be admitted in palliation of grosser errors. The narrative is a mere extract from an official record, with an omission of some words, and some trifling verbal alterations.

As it is usual with the ryots, or husbandmen, to reserve a certain portion of the canes of the preceding year to serve as plants for their new cultivation, it very frequently happens that inconsiderable portions of the old cane remain unappropriated. Whenever this happens, the proprietor repairs to the spot on the 25th of *Jeyte*, or about the 11th of *June*, and having sacrificed to *Nagabale*, or the tutelary deity of the cane, he immediately sets fire to the whole, and is exceedingly careful to have this operation executed in as complete and efficacious a manner as possible.

THIS act is performed from an apprehension, that if the old canes were allowed to remain in the ground beyond the 25th of *Jeyte*, they would in all probability produce flowers and reeds, and the appearance of these flowers they consider as one of the greatest misfortunes that can befall them.

THEY unanimously assert, that if the proprietor of a plantation ever happens to view even a single cane therein in flower after the 25th of *Jeyte*, the greatest calamities will befall himself, his parents, his children, and his property, in short, that death will sweep away most of the members, or indeed the whole of his family, within a short period after this unfortunate spectacle

spectacle. If the proprietor's servant happens to see the flower, and immediately pulls it from the stalk, buries it in the earth, and never reveals the circumstance to his master; in this case they believe that it will not be productive of any evil consequence. But should the master reach the proprietor's knowledge, the calamities before stated must, according to the prevailing ideas, infallibly happen.

In support of this belief, many of the most aged zamindars and ryots in the province of *Benares*, recited several instances of the above nature, which they affirmed to have actually happened during their own time, and moreover, that they had been personal witnesses to the evils and misfortunes which beset the unhappy victims of the description alluded to.

When we reflect how generally credit was given to the power of witchcraft, long after the revival of letters in *Europe*, and that names of great repute for learning and abilities are found amongst its defenders, we shall not be surprised that charms and amulets are worn in this country by men of superior rank and education; that astrologers are consulted to name the fortunate hour for commencing a journey or expedition; and that the fascinating influence of an evil eye upon the human constitution, as well as the power of witchcraft, is admitted by the vulgar in general. Fortunately, however, the practice is not supposed to bear any proportion to the belief of the power; although two recent instances occur to my recollection, of individuals having been sacrificed to this popular delusion, or at least the imputation of witchcraft was made the pretence for depriving them of life.

But the judicial records contain a case of great enormity, in which five women were put to death for the supposed practice of sorcery. I shall submit

that the circumstances of this transaction, with some detail, before the Society, premising that it happened in a district of *Rangur*, the least civilised part of the Company's possessions, amongst a wild and unlettered tribe, denominated *Sontaar*, who have reduced the detection and trial of persons suspected of witchcraft to a system.

Thus men of the cast of *Sontaar*, were in the year 1792 indicted for the murder of five women, the prisoners without hesitation confessed the crime with which they were charged, and pleaded in their defence that with their tribes it was the immemorial custom and practice to try persons notorious for witchcraft. That for this purpose an assembly was convened of those of the same tribe, from far and near, and if after due investigation the charge was proved, the sorcerers were put to death, and no complaint was ever preferred on this account to the ruling power. That the women who were killed had undergone the prescribed form of trial, were duly convicted of causing the death of the son of one of the prisoners by witchcraft, and had been put to death by the prisoners, in conformity to the sentence of the assembly.

The prosecutors, who, agreeably to the forms of the *Mahomedan* law, were the relations of the deceased women, declared they had no charge to prefer against the prisoners, being satisfied that their relations had really practised sorcery.

This custom pleaded by the prisoners was fully substantiated by the testimony of a great number of witnesses, who recited specific facts in support of it, without any denial or disagreement, and from the collective

evidence exhibited in the course of the enquiry, the following curious and extraordinary circumstances appeared :—

THAT the successive demise of three or four young people in a village, led to a suspicion of sorcery as the cause of it; and the inhabitants taking alarm were upon the watch to detect the witches. They were generally discovered dancing naked at midnight by the light of a lamp, with a broom tied round their waists, either near the house of a sick person, or on the outside of the village.

To ascertain with a greater degree of certainty the persons guilty of practising witchcraft, the three following modes are adopted:

First. Branches of the *Saal* tree, marked with the names of all the females in the village, whether married or unmarried, who have attained the age of twelve years, are planted in the water in the morning, for the space of four hours and a half; and the withering of any of these branches is proof of witchcraft against the person whose name is annexed to it.

Secondly. Small portions of rice enveloped in cloths, marked as above, are placed in a nest of white ants; the consumption of the rice in any of the bags, establishes sorcery against the woman whose name it bears.

Thirdly. Lamps are lighted at night; water is placed in cups made of leaves, and mustard-seed and oil is poured, drop by drop, into the water, whilst the name of each woman in the village is pronounced; the appearance of the shadow of any woman on the water, during this ceremony, proves her a witch.

SUCH

Such are the general rules for ascertaining those who practise witchcraft. In the instance which I have quoted, the witnesses swore, and probably believed, that all the proofs against the unfortunate women had been duly verified they assert in evidence, that the branches marked with the names of the five women accused were withered; that the rice in the bags having their specific names, was devoured by the white ants, whilst that in the other bags remained untouched, that their shadows appeared on the water, on the oil being poured upon it whilst their names were pronounced; and farther, that they were seen dancing at midnight in the situation above described.

It is difficult to conceive that this coincidence of proof could have been made plausible to the grossest ignorance, if experience did not shew that prepossession will supersede the evidence of the senses.

The following custom would be too trivial for notice, if it were not strongly descriptive of the simplicity and ignorance which mark the character of the generality of the inhabitants of *Rangoon*.

From habitual neglect in ascertaining the quantities of land held in lease, and in defining with accuracy their respective tenures, frequent disputes arise between the inhabitants of different villages regarding their boundaries to determine them, a reference is usually made to one or more of the oldest inhabitants of the adjacent villages, and if these should not agree in their decision, other men are selected from the inhabitants of the villages claiming the disputed ground, and the trial proceeds as follows. Holes are dug in the contested spot, and into these holes each of the chosen men puts a leg, and the earth is then thrown in upon it, and in this

situation they remain until one either expresses a wish to be released, or complains of being bitten or stung by some insect. This decides the contest, and the property of the ground is adjudged to belong to that village the inhabitant of which goes through the trial with the most fortitude, and escapes unhurt by insects.

If the preceding detail has no relation to science, it is at least descriptive of manners, and in availing myself of the opportunities afforded by official occupations (which is all indeed that these occupations admit) to contribute my portion to the researches of the Society, my example will, I hope, be imitated by those who with the same, or greater opportunities, possess more knowledge, ability, and leisure.

V O T E.

HAVING lately received some further documents on the subject of the *Dhurna*, which I did not possess when the preceding paper was read to the Society, I have extracted from them what appears to me requisite to elucidate this extraordinary practice. From these documents it appears that several cases of *Dhurna* had been brought before the Provincial Court of Justice at Benares, and as a penalty had been annexed to the performance of this mode of importunity, it became necessary to define with precision the rules constituting *Dhurna*, according to the *Shaster* and *Uriage*.

For this purpose a question was proposed to several *Pandits*, inhabitants of the province and city of Benares; and the answer subscribed by twenty-three *Pandits* is as follows.

" ANY

Any one who sits *Dburna* on another's door, or in his house for the realization of a debt, or for other purpose, in which the party sitting takes with him some weapon or poison, and sits down; nor does he eat himself, nor allow the party against whom he is sitting, or his family, to eat, nor does he allow any person ingress into that person's house nor egress from it, and addressing himself in terms of the strongest oaths to the people of the house, he says, " If any of those of your house shall eat victuals, " or go into your house, or go out of it, I shall either wound myself with " this weapon, or swallow this poison," and it does sometimes happen that both these events take place, and that he who sits in *Dburna* is not to remove from it without the intreaty of those on whom he is sitting, or the order of the *Hakim*. whenever all the requisites above mentioned are found united, they constitute *Dburna*, but if any one of them be wanting, that is not *Dburna*, but *Tuckara* or *Dunning* and as no text of the *Shaster* hath been found concerning *Dburna*, wherefore we have delivered the requisites thereof according to the common custom and practice "

THEIR IS some difference in the opinions of other *Pandits* as to what is understood to constitute *Dburna*; but the quotation which I have inserted, appears to me to contain the most authentic information on this subject

THE Society will observe that the practice is not specifically pointed out in the *Shaster*, but has the sanction of usage only

THE following instance is of late occurrence. In January 1794, MOHIT PANASH, an inhabitant of a district in the province of Benares, sat down in *Dburna* before the house of some *Rajepoots*, for the purpose of obtaining the payment of *Birti*, or a charitable subsistence to which he had a claim

claim, and in this situation destroyed himself by swallowing poison. Some of the relations of the deceased retained his corpse for two days before the house of the *Rapportis*, who thus were compelled to forego taking sustenance, in order to induce them to settle the *Birt* on the heir of the deceased *Brahman*.

XXII.

DESCRIPTION OF THE YAK OF TARTARY,

CALLED

SOORA-GOY, OR THE BUSHY-TAILED BULL OF TIBETBY LIEUTENANT SAMUEL TURNER.

THE *Yak* of *Tartary*, called *Saura-Goy* in *Hindostan*, and which I term, the bushy-tailed bull of *Tibet*, is about the height of an *English* bull, which he resembles in the figure of the body, head, and legs. I could discover between them no essential difference, except only that the *Yak* is covered all over with a thick coat of long hair. The head is rather short, crowned with two smooth round horns, that, tapering from the setting-on, terminate in sharp points, arch inwardly, and near the extremities are a little turned back, the ears are small, the forehead appears prominent, being adorned with much curling hair, the eyes are full and large, the nose smooth and convex; the nostrils small, the neck short, describing a curvature nearly equal both above and below, the withers high and arched; the rump low. Over the shoulders rises a bunch, which at first sight would seem to be the same kind of exuberance peculiar to the cattle of *Hindostan*; but in reality it consists in the superior length of the hair only, which as well as that along the ridge of the back to the setting-on of the tail, grows long and erect, but not harsh. The tail is composed of a prodigious quantity of long flowing glossy hair descending to the hock, and is so extremely well furnished, that not a joint of it is perceptible, but it has much the appearance of a large bunch of hair artificially set on the shoulders.

shoulders, rump, and upper part of the body is clothed with a sort of thick soft wool, but the inferior parts with straight pendant hair, that descends below the knee; and I have seen it so long in some cattle which were in high health and condition, as to trail upon the ground. From the chest, between the fore legs, issues a large pointed tuft of hair, growing somewhat longer than the rest. The legs are very short. In every other respect, hoofs, &c he resembles the ordinary bull. There is a great variety of colors amongst them, but black or white are the most prevalent. It is not uncommon to see the long hair upon the ridge of the back, the tail, tuft upon the chest, and the legs below the knee white, when all the rest of the animal is jet black.

THESE cattle, though not large boned, from the profuse quantity of hair with which they are provided, appear of great bulk. They have a downy heavy look, but are fierce, and discover much impatience at the near approach of strangers. They do not low loud (like the cattle of *England*) any more than those of *Hindostan*, but make a low grunting noise scarce audible, and that but seldom, when under some impression of uneasiness. These cattle are pastured in the coldest parts of *Tibet*, upon the short herbage peculiar to the tops of mountains and bleak plains. That chain of lofty mountains situated between the lat 27 and 3, which divide *Tibet* from *Bootan*, and whose summits are most commonly clothed with snow, is their favourite haunt. In this vicinity the southern glens afford them food and shelter during the severity of winter, in milder seasons the northern aspect is more congenial to their nature, and admits a wider range. They are a very valuable property to the tribes of illiterate *Tartars*, who live in tents and tend them from place to place, affording their herdsmen a mode of conveyance, a good covering, and subsistence. They are never employed

ployed in agriculture, but are extremely useful as beasts of burthen, for they are strong, sure-footed, and carry a great weight. Tents and ropes are manufactured of their hair, and I have, though amongst the humblest rank of herdsmen, seen caps and jackets worn of their skin. Their tails are esteemed throughout the *East*, as far as luxury or parade have any influence on the manners of the people, and on the continent of *India* are found, under the denomination of *Cbownies*, in the hands of the meanest grooms as well as occasionally in those of the first ministers of state. Yet the best requital with which the care of their keepers is at length rewarded for selecting them good pastures, is in the abundant quantity of rich milk they give, yielding most excellent butter, which they have a custom of depositing in skins or bladders, and excluding the air. It keeps in this cold climate during all the year, so that after some time tending their flocks, when a sufficient stock is accumulated, it remains only to load their cattle and drive them to a proper market with their own produce, which constitutes, to the utmost verge of *Tartary*, a most material article of merchandize.

XXIV

A DESCRIPTION OF THE JONESIA.

BY DOCTOR ROXBURGH

C⁷ Heptandria Monogynia

ESSENTIALS CHARACTER

CALYX, two-leaved, Corol, one-petaled, Pistil-bearing, base of the Tube impervious, Stamens long, ascending, inserted into the margin of a glandulous nectarial ring, which crowns the mouth of the tube, the uppermost two of which more distant, Style declining, Legume turgid

CONSECRATED to the remembrance of our late President, the most justly celebrated Sir WILLIAM JONES, whose great knowledge of this science, independent of his other incomparable qualifications, justly entitles his memory to this mark of regard

JONESIA AS'OLA

Asjogam Hort Mat 5, P 117, Tab 59

As'ola, is the Sanscrit name

VANJULA, a synonyme

Russuk of the Bengalese

FOUND in gardens about Calcutta, where it grows to be a very handsome middling sized famous tree, flowering time the beginning of the hot season, Seeds ripen during the rains The plants and seeds were, I am

informed, originally brought from the interior parts of the country, where it is indigenous

TRUNK erect, though not very straight Bark dark brown, pretty smooth
Branches numerous, spreading in every direction, so as to form a most elegant shady head

LEAVES alternate, abruptly feathered, sessile, generally more than a foot long, when young pendulous, and coloured

LEAFLETS opposite, from four to six pair, the lowermost broad lanced, the upper lanced, smooth, shining, firm, a little waved, from four to eight inches long

PETIOLE common, round and smooth.

STIPULE axillary, solitary; in fact a process from the base of the common petiole, as in many of the grasses and monandrists, &c

UMBEL terminal and axillary, between the stipule and branchlet, globular, crowded, subsessile, erect

BRACKETS, a small hearted one under each division of the umbel

PEDUNCLE and pedicels smooth, coloured

FLOWERS very numerous, pretty large, when they first expand, they are of a beautiful orange colour, gradually changing to red, forming a variety of lovely shades, fragrant during the night

CALIX perianth, below two-leaved, leaflets small, nearly opposite, coloured, hearted, bracte-like, marking the termination of the Pedicel, or beginning of the tube of the Corol

COROL one-petal'd, funnel-form; tube slightly incurved, firm and fleshy, tapering towards the base (club-funnel-shaped) and there impervious, border four-parted, division spreading, suborbicular, margins most slightly woolly one-third the length of the tube

NECTARY

NECTARY a stameniferous and pistilliferous ring crowns the mouth of the tube

STAMENS, filaments (generally) seven, and seven must, I think, be the natural number, viz three on each side, and one below, above a vacancy, as if the place of an eight filament, and is occupied on its inside by the pistil, they are equal, distinct, ascending, from three to four times longer than the border of the corol

ANTHEAS uniform, small, incumbent

PISTIL, germ oblong, pedicled, pedicel inserted into the inside of the nectary, immediately below the vacant space already mentioned; Style nearly as long as the stamens, declining, Stigma simple

PEALICARPE, legume scimitar-form, turgid, outside reticulated, otherwise pretty smooth, from six to ten inches long, and about two broad

SEEDS generally from four to eight, smooth, grey, size of a large chestnut

Note Many of the flowers have only the rudiment of a pistil a section of one of these is seen at D

R E F L R E N C E S

- A A branchlet natural size
- B A single flower a little magnified, aa the calyx
- C A section of the same, exhibiting four of the stamens, 1 1 1 1, the pistil 2, and how far the tube is perforated
- D A similar section of one of the abortive flowers. 3 is the abortive pistil
- E The ripe legume opening near the base, natural size Note, the space between the b and c marks the original tube of the corol
- F One of the seeds natural size
- G The base of the common petiole, with its stipule, aa the petioles of the lower pair of leaflets

ASTRONOMICAL

XXV

ASTRONOMICAL OBSERVATIONS

BY WILLIAM HUNTER, ESQ.

LATITUDES OBSERVED

1793	PLACES	Sun or Star	Latitude	Remarks
Septem. 27				
	<i>Kbedahgunge, Camp on the South Bank of the Caly-Nuddee Gate N 58 W 4; Furlong;</i>	O M A	27° 10' 00"	Clear moderate By Survey, difference of Latitude between Futtetgarh and Kbedahgunge is 11° 1'. Kbedahgunge and Jelalabad 4° 54'. Making Futtetgarh 27° 22' 8", this gives Kbedahgunge 27° 11' 7" and Jelalabad 27° 6' 13". As the last agrees so exactly with the observation, I think the Latitude observed at Kbedahgunge was too little
28	<i>Jelalabad Gate N 52 W 14 F</i>	O M. A	27 6 9	Clear Moderate
29	<i>Moorin-ca-Seray, N 43 W 27 F</i>	O M A	27 1 17	Do Calm
30	<i>Perronab, opposite Namapow, which bears S. 73 W 12 F</i>	O M A	26 53 42	Do Moderate
October 1	<i>Hazar Gunge, Gate N 62 W 1 F</i>	O M A	25 46 18	Do
5	<i>LUCKNOW, Mr TAYLOR's House.</i>	O VI A	26 51 11	Do.
17	Do Do	O M. A	26 51 1	Do
Decem 12	<i>FUTTEYGURH, my Bunglah</i>	Do	27 22 23	Do
22	<i>Jelalabad (Station of Sep 28)</i>	Do	27 1 29	Do
23	<i>Moorin-ca-Seray (Do. of 29)</i>	Do.	27 1 19	Do
25	<i>Tekab, N 85 W 0,8 F</i>	Do	26 50 39	Windv

ASTRONOMICAL OBSERVATIONS

1794.	P L & C R S.	Sun or Star	Latitude	Remarks
Jan 16	Surat Burra, W N W 2 Fz	O M. A.	26 53 57	Clear Moderate
17	Sufidganga, S. 40 W 1 F	Do.	26 55 11	Do Windy
18	Derrabhad, S 64 W 1,5 F	Do.	26 53 37	Do
	Ditto,	O 2 Alt.	26 53 31	Do
19	Shayab-Gang, N 28 W —S 72 W nearest distance (S end) 0,8 F	O M. A.	26 49 35	Do
Jan 20	Neray, N E.—S. 55 W, nearest 30 Yds	Do	26 46 45	Do
21	Surya-kend, Temple of the Sun, N. 47 W 2, 16 Fz	Do	26 45 6	Do
22	Begum-Ganga, N 48 W —S. 27 W nearest distance 50 Yards.	Do.	26 39 39	Moderate
23	TANDAN, Bungalihs	Do.	26 33 18	Do
25	Ditto, Do.	Do	26 33 29	Do
26	Burrar-ganga, Gate S 70 E 1,4 Fz	Do.	26 38 40	Do
27	Jelal-ad-din-magar, S. 66 E 1,8 Fz	Do	26 43 5	Do
28	OURA, Tomb of BURLA, N 56 W 1,8 Fz	Do.	26 43 43	Do.
29	Do at Tomb of BURLA	Do.	26 43 43	Do
30	Fyzabad, Octagon Tower in RUM- KAM	Do.	26 43 32	Windy
31	Ditto Do	Do.	26 43 17	Do. Moderate. Sun had passed the Mer- idian about three Mi- nutes. Observation close
Feb. 1	Neray, N 42 E.—S. 68 E. 1 F	Do	26 46 50	Thin fitting clouds, calm.

2794.	PLACES.	Sun or Star.	Latitude	Remarks.
	25 <i>Sohni Gange</i> , Gate S 42 E 49 F.	O M A	26 50 3	Calm. Moderate.
	3 <i>Derrabad</i> , Gate S 20 E. 13 F.	Do.	26 54 15	Do. Windy
	4 <i>Sufler Gunge</i> , Stat. of Jml. 17.	Do.	26 55 45	Do. Do
March 30	<i>Brewer.</i>	A. U. M.	27 13 45	Do. Moderate.
31	<i>Maisperry</i> , Mohunagunge, S 31—73 W. 2,75 F.	A. Hydr.	27 14 30	Do. Do.
April 1	Ditto, Do.	A. U. M.	27 13 22	Do. Windy.
2	<i>Bangarapet.</i>	A. Hydr.	27 14 30	Do. Moderate.
3	<i>Mahomedabad</i>	Do	27 18 20	Do. Do
May 29	<i>Darwah</i> , Mr. BREWER's Bungah.	= ♀	26 51 6	Do. Do.
30	Ditto, Do	Do	26 51 6	Do. Do.
—	Ditto, Do.	A. Draconis	26 50 47	Do. Do.
31	<i>Pearah</i> , N 68 W 4 F.	= ♀	26 44 5	Do. Do.
June 1	<i>Chidapoor</i>	= ♀	26 36 42	Do. Do.
2	<i>KANHPOOR</i> , Mr. YELD's Bungah.	= ♀	26 28 37	Do. Do.
3	Ditto, Do	= ♀	26 27 56	Do. Windy
12	<i>Owan</i> , S W 3 F.	Do.	26 33 26	Do. Moderate
13	<i>Jelooter</i> , Fort N 53 W 7,7 F.	Do.	26 41 57	Do. Windy.
14	<i>Noel Gange</i> , Gate S. 20 W. 2 F.	Do.	26 47 42	Do. Moderate.
Sept. 4	<i>Mash Gange</i> (near Jelooter) West Gate No 1,75 F.	A. Pisc. Aust.	26 58 4	Do. Calm.
11	<i>KANHPOOR</i> , Mr. YELD's Bungah	Do.	26 28 33	Do. Do.
15	Ditto, Do.	Do.	26 28 56	Do. Moderate.
16	<i>Rampur</i> , near Muswasee.	Do	26 30 49	Do. Do
Oct 17	<i>Keween</i> , S 70 E. 4,1 F	O M A	26 48 50	Do. Do.
18	<i>Aterdhun</i> , N 42 W. 6 F.	Do.	26 50 48	Do. Do.

1794.	PLACE.	SUPER STAR	LATITUDE.	REMARKS
Oct. 19	Sidneygate, S. 30 W.—S. 60 E. 1,5 Fm.	O M. A.	26 58 45	Clear Light Breeze.
20	Pawnee, South-east angle S. 30 W. 4-6 Fm. Fm.	Do.	27 7 16	Do. Calm.
21	Litchfield, S.—S. 34 E. 1,5 Fm.	Do.	27 1 39	Do. Moderate.
22	Mormon-ca-jrey, S. E. 1 Fm.	Do.	27 1 59	Do. Do.
23	Savoy, north end of Gunge.	Do.	27 8 27	Do. Do.

XXVI

**A DISSERTATION ON SEMIRAMIS,
THE ORIGIN OF MECCA, &c
FROM THE HINDU SACRED BOOKS.**

BY LIEUTENANT FRANCIS WILFORD

IN the *Schāndā-purāna* and *Vis'va-tāra pracāsa*, or declaration of what is most excellent in the world, we find the following legends, which have an evident relation to the origin of Semiramis, the Syrian dove, *Ninus*, and the building of *Nimueh*, *Hierapolis*, and *Mecca*, &c

MAHA'-DE'VA and his consort PA'RVATI, with a view to do good to mankind, quitted their divine abode on *Cailasa*, and proceeding towards the north, alighted on the summit of the *Nishbāda* mountains, where they found the *Devatas* ready to receive them, with a numerous retinue of Celestial Nymphs, and Heavenly Quiristers MAHA'-DE'VA was so struck with the beauty of some of the *Apsaras*, and his looks were so expressive of his internal raptures, that PA'RVATI, unable to conceal her indignation, uttered the most virulent reproaches against him Conscious of the impropriety of his behaviour, MAHA'-DE'VA used every endeavour to pacify her, he humbled himself, he praised her, and addressed her by the flattering appellation of MAHA'-BHA'GA, but to no purpose She fled into *Cusba-dusp*, on the mountains of *Vabni-vyapta*, and seating herself in the hollow trunk of a *Sami*-tree, performed *Tapasya*, (or austere devotion) for the space of nine years, when fire springing from her, pervaded with rapid violence the whole range of mountains, in so much, that men

and animals were terrified, and fled with the utmost precipitation. Da'vi, unwilling that her devotion should prove a cause of distress to the animal creation, recalled the sacred flame, and confined it in the *Sams*-tree. She made the hollow of that tree her place of abode and dalliance; and hence she is called SAMI-RA'MA', or she who dallies in the *Sami*-tree.

THE fugitives returning, performed the *Puja* in adoration of her, with songs in her praise. The flame confined in the *Sams*-tree still remains in it, and the *Devatas* are highly delighted with the fire, which is lighted from the *Antra* (or cubic wood of that tree). The *Antra* is the mother of fire, and is produced from the *Sams*-tree. From that time, this sacred tree gives an increase of virtue, and bestows wealth and corn. In the month of *Akrina*, or *Caar*, the tenth of the first fifteen days of the moon is kept holy, and *Puja* is made to SAMI-RA'MA' and to the *Sams*-tree; and those who perform it obtain the object of their desires. This sacred rite I have hitherto kept concealed from the world, says MAMA'DA'VA, but now I make it known for the good of mankind; and whosoever performs it will be victorious over his enemies for the space of one year.

DURING these transactions, Vi'sv'r'awara-Maha'-da'va, or Ca'si'-pati (that is to say, Maha'-de'va, the lord of the world and sovereign of Cár; or Benares) visited the country of Purushotama, in *Utkala*-desa or Orissa; which he was surprised to find overspread with long grass, and without inhabitants. He resolved to destroy the long grass, and for this purpose, assuming the diminutive shape of a dove, with an angry countenance, commenced the performance *Tapasyé*; his consort Da'vi' also transformed herself into a bird of the same species, and from that time they were known to mankind, and worshipped under the titles of Ca'po'-te'awara

TE'SWARA and CAPO'TE'SI or ISWARA and IAI', in the shape of a dove They set fire to the *Cusba*, or long grass, and the country became like *Vin-dra-van* near (*Muttra*) and was soon filled with inhabitants The spot where they performed their *Tapasyā*, is called to this day *Capita-st'hala*, or the place of the dove It is a celebrated place of worship, and, as I am informed, about five coss from *Jagannāt'ha*.

ALMOST the whole universe was likewise at this time overspread with long grass; and to destroy it, MAHA'-DE'VA, with his consort, resolved to travel round the world. They accordingly proceeded into *Cusba-dvipa*, which they found thinly inhabited by a few *Mlech'bas*, or impure tribes, and the *Tavanas*, who concealed their booty in the grass which covered the country

MAHA'-DE'VA took compassion on them, and considering their sufferings in this inhospitable country as a sort of *Tapasyā*, he resolved to bestow *Mōcsha*, or eternal bliss, on them for this purpose he assumed the character and countenance of MOCSHE'SWARA or ISWARA, who bestows *Mōcsha*, and directed his consort CAPO'TE'SI, who is also called MAHA'-REKA'GA', to go to *Vahni-st'hān*, on the borders of *Cusba-dvipa*, there to make *Tapasyā*, in order to destroy the long grass. Accordingly she went into *Vahni-st'hān*; and that she might effect it without trouble to herself, she assumed another form: from which circumstance she was named ANA'YASA'. In this character she seated herself on a beautiful hill, and there made *Tapasyā* for many days At last fire sprung from her devotion, and its presiding power standing before her, she directed him to destroy the *Cusba*, when the hills were soon in a blaze, and the *Tavanas* and other *Mlech'bas* obtaining *Mōcsha*, were reunited to the Supreme Being, without labour

labour or effect on their part; that is to say, they were involved in the general conflagration and destroyed.

WHEN the grass was consumed, ANA'YA'SA ordered the clouds to gather, and pour their waters on the land, which was soon overflowed. The waters then retired, and the four great tribes came into Cusba-dvip, where they soon formed a powerful nation, and became rich and happy. After the conflagration, all sorts of metals and precious stones were found throughout the country. The countenance of ANA'YA'SA'-DE'VA is that of fire; and a most divine form it is.

THE inhabitants soon after deviating from the paths of rectitude, became like the *Mlech'bas* and the *Tavanas* re-entered Cusba-dvip, plundering and laying waste the whole country. The four tribes applied to ANA'YA'SA', offered praises to her, and requested she would protect them against the *Tavanas*, and dwell among them. MAHA'-BHA'GA' assented, and the spot which she chose for her abode, is called *Mabâ-khigâ-s'ban*, or the place of MAHA'-BHA'GA'.

IN the mean time MAHA'-DE'VA was at Môcsba-s't'bân, or *Môcsbissa*, bestowing *Môcsba* on all who came to worship there. It is a most holy place, and there MARA'-DE'VA laid aside the countenance and shape of CAPOTE'SWARA, and assumed that of Mo'cshe'WARA.

AMONG the first votaries of MARA'-DE'VA, who repaired to *Môcsba-s't'bân*, was VI'RAS'E'NA, the son of GUHYACI. He had been making *Tapasyâ* for a long time, in honor of MAHA'-DE'VA, who at last appeared to him, and made him king over *Sî'hâras*, or the immovable part of the creation.

Hence

Hence he was called ST'HA'VARA-PATI; and the hills, trees, plants, and grasses of every kind were ordered to obey him. His native country was near the sea, and he began his reign with repressing the wicked, and insisting on all his subjects walking in the paths of justice and rectitude. In order to make his sovereignty acknowledged throughout the world, he put himself at the head of a numerous army, and directing his course towards the north, he arrived at Mōesha-st'bān, where he performed the *Pūjā* in honour of Mo'cishr'swāra, according to the rites prescribed in the sacred books. From Mōesha he advanced towards the *Agni-pārvatas*, or fire-mountains, in *Vabni-st'bān*; but they refused to meet him with presents, and to pay tribute to him. Incensed at their insolence, ST'HA'VAR-PATI resolved to destroy them, the officers on the part of SAMI'-RĀ'MA', the sovereign of *Vabni-st'bān*, assembled all their troops, and met the army of ST'HA'VAR-PATI; but after a bloody conflict, they were put to flight.

SAMI'-RĀ'MA' amazed, enquired who this new conqueror was, and soon reflected that he could never have prevailed against her, without a boon from MAHA'-DE'VA, obtained by the means of what is called *Ugra-Tapasyā*, or a *Tapasya* performed with fervor, earnestness of desire, and anger. She had a conference with ST'HA'VAR-PATI, and as he was, through his *Tapasyā*, become a son of MAHA'-DE'VA, she told him she considered him in that light, and would allow him to command over all the hills, trees, and plants in *Vabni-st'bān*. The hills then humbled themselves before ST'HA'VAR-PATI, and paid tribute to him.

THE origin of NIVUS is thus related in the same sacred books. One day, as MAHA'-DE'VA was rambling over the earth naked, and with a large club in his hand, he chanced to pass near the spot where several *Munis* were performing their devotions. MAHA'-DE'VA laughed at them, insulted

ed them in the most provoking and indecent scenes, and lest his expressions should not be forcible enough, he accompanied the whole with significant signs and gestures. The offended *Muru* cursed him, and the *Lingas* or *Phallus* fell to the ground. MĀHĀ'-DE'VA, in this state of mutilation, travelled over the world, bewailing his misfortune. His consort too, hearing of this accident, gave herself up to grief, and ran after him in a state of distraction, repeating mournful songs. This is what the Greek mythologists called the Wanderings of DAMASUS, and the Lamentations of BACCHUS.

The world being thus deprived of its vivifying principle, generation and vegetation were at a stand; Gods and men were alarmed; but having discovered the cause of it, they all went in search of the sacred *Lingas*; and at last found it grown to an immense size, and endowed with life and motion.

HAVING worshipped the sacred pledge, they cut it, with hatchets, into one-and-thirty pieces, which, *Polyphæs*-like, soon became perfect *Lingas*. The *Devas* left one-and-twenty of them on earth, carried nine into Heaven, and removed one into the inferior regions, for the benefit of the inhabitants of the three worlds. One of these *Lingas* was erected on the banks of the *Gumā-vati*, or *Euphrates*, under the name of BA'LĀ'SWĀRA-LINGA, or the *Linga* of IWARA the Infant, who seems to answer to the JUPITER PUER of the western mythologists. To satisfy Dī'VI, and restore all things to their former situation, MĀHĀ'-DE'VA' was born again in the character of BALĀ'SWĀRA, or IWARA the Infant. BALĀ'SWĀRA, who fosters and preserves all, though a child, was of uncommon strength; he had a beautiful countenance, his manners were most engaging, and his only wish was to please every body; in which he succeeded effectually; but his subjects waited with impatience till he came to the age of maturity, that he might bless them with an heir to his virtues. BALĀ'SWĀRA,

to please them, threw off his childlike appearance, and suddenly became a man, under the title of Li'LE'SWARA, or ISWARA, who gives pleasure and delight. He then began to reign over Gods and men, with the strictest adherence to justice and equity. His subjects were happy, and the women beheld with extacy his noble and manly appearance. With the view of doing good to mankind, he put himself at the head of a powerful army, and conquered many distant countries, destroying the wicked, and all oppressors. He had the happiness of his subjects and of mankind in general so much at heart, that he entirely neglected every other pursuit. His indifference for the female sex alarmed his subjects; he endeavoured to please them, but his embraces were fruitless. This is termed *Ase'balana* in *Samskrit*; and the place where this happened was in consequence denominated *Ase'balanis'bān*. The *Apsoras*, or celestial nymphs, tried in vain the effect of their charms. At last SAMI-RA'MA' came to *Ase'balanis'bān*, and retiring into a solitary place in its vicinity, chanted her own metamorphoses and those of Li'LE'SWARA, who happening to pass by, was so delighted with the sweetness of her voice, that he went to her and enquired who she was. She related to him how they went together into *Uccladésa* in the characters of the CAPO'TESWARA and CAPENTZ'I: adding, you appeared then as MOCSHE'SWA'RA, and I became ANAY'ASA; you are now Li'LE'SWARA, and I am SAMI-RA'MA', but I shall be soon Li'LE'SWARI. Li'LE'SWARA, being under the influence of MA'YA, or worldly illusion, did not recollect any of these transactions, but suspecting that the person he was speaking to might be a manifestation of PA'RvATI, he thought it adviseable to marry her, and having obtained her consent, he seized her hand, and led her to the performance of the nuptial ceremony, to the universal satisfaction of his subjects. Gods and men met to solemnize this happy union, and the celestial nymphs and heavenly quiristers graced it with their presence. Thus SAMI-RA'MA' and Li'LE'SWARA commen-

ced their reign, to the general satisfaction of mankind, who were happy under their virtuous administration.

From that period the three worlds began to know and worship Li'l'es-wārī, who after he had conquered the universe, returned into *Cubē-dūpī*. Li'l'eswārī having married Sami-Rā'mā', lived constantly with her, and followed her wherever she chose to go in whatever pursuits and pastimes she delighted, in these alone he took pleasure; thus they travelled over hills and through forests to distant countries, but at last returned to *Cubē-dūpī* and Sami-Rā'mā' seeing a delightful grove near the *Hradavītā* (or deep water) with a small river of the same name, expressed a wish that he would fix the place of their residence in this beautiful spot, there to spend their days in pleasure.

This place became famous afterwards, under the name of *Isla-sī'bān*, or the place of delight. The water of the *Hradavītā* is very limpid and abounds with *Camala*-flowers, or red *Latis*.

Sami-Rā'mā' is obviously the SEMIRAMIS of the western mythologists, whose appellation is derived from the *Sanscrit* SAMI-RĀ'ME'SI', or Isi' (*Ius*) dallying in the *Sami*, or Fire-tree. The title of SAMI'-RĀ'ME'SI' is not to be found in the *Purānas*, but it is more grammatical than the other and it is absolutely necessary to suppose the word Isi' or Esi' in composition, in order to make it intelligible.

Diono^stos SICULUS* informs us that she was born at *Ascalon* the *Purānās*, that her first appearance in Syria was at *Aṣ'balana-**cī'bān*, or the place where Li'l'esā or Nixus had *Aṣ'balana*.

* Diono^stos SICULUS, lib 3 cap 2.

The defeat of SEMIRAMIS by STAUROBATES, is recorded in the *Puranas* with still more extravagant circumstances; for STAUROBATES is obviously ST'HA'VARA-PATI, or ST'HA'WARA-PATI, as it is more generally pronounced.

The places of worship mentioned in the above legends are *Mesba* or *Mesiba-st'bán*, *Aś'halā-st'bán* or *Aś'halana-st'bán*, two places of the name of *Lila-st'bán* or *Lilisa-st'bán*, *Anajá-sa-dívī-st'bán* and *Mabá-bbág-a-st'bán*.

The Brahmen, in the western parts of India, insist that *Mesba-st'bán* is the present town of Mecca. The word *Mesba* is always pronounced in the vulgar dialects, either *Mesa* or *Mesa*, and the author of the *Dalistan* says, its ancient name was *Maca*. We find it called *Maco Raba*, by PTOLEMY, or *Moca the Great* or *Illustrious*. GUY PATIN mentions a medal of ANTONINUS PIUS with this legend, "MOCÆ, sara, inviolabilis, suis utens legibus," "Moca the holy, the inviolable, and using her own laws." This, in my humble opinion, is applicable only to Mecca, or *Mesba-st'bán*, which the *Purana*, describe as a most holy place. The Arabian authors unanimously confirm the truth of the above legend; and it is ridiculous to apply it to an obscure and insignificant place in *Arabia Petrea*, called also *Moca*. It may be objected, that it does not appear that Mecca was ever a *Roman* colony. I do not believe it ever was, but at the same time it is possible that some connection for commercial purposes might have existed between the rulers of Mecca and the *Romans* in *Egypt*. The learned are not ignorant that the *Romans* boasted a little too much of their progress in *Arabia*, and even medals were struck with no other view, apparently, but to impose on the multitude at *Rome*. It is unfortunate that we do not meet in the *Puranas*

with the necessary data to ascertain, beyond doubt, the situation of *Mes-sesa*. From the particulars contained in them, however, it appears to have been situated a great way to the westward, with respect to *India*, and not far from *Egypt* and *Ethiopia*, as has been shewn in a former dissertation on these countries, and in the third volume of the *Asiatic Researches*.

IT is declared in the *Purâas* that CAPO'TE'SWARA and his consort CA-FO'TE'SI, in the shape of two doves, remained there for some time, and Arabian authors inform us, that in the time of MOHAMMED, there was in the temple of Mecca a pigeon carved in wood, and another above this to destroy which, MOHAMMED lifted ALI upon his shoulders. These pigeons were most probably placed there in commemoration of the arrival of MAHA'-DE'YA and Dz'vr, in the shape of two doves.

THE worship of the dove seems to have been peculiar to *India*, *Arabia*, *Syria*, and *Affyria*. We read of SEMIRAMIS being fed by doves in the desert, and of her vanishing at last from the sight of men, in the shape of a dove; and according to the *Purâas*, CAPO'TE'SI, or the dove, was but a manifestation of SAMI-RA'MA'.

THE dove seems to have been in former times the device of the *Affyrian*, as the eagle was of the *Roman* empire, for we read in *Isaías**, " And " the inhabitants of this country shall say in that day, such was our expec- " ration! behold whether we wanted to fly for help from the face of the " dove, but how could we have escaped?"

I HAVE adhered chiefly to the translation of TREMELLUS, which ap-pears the most literal, and to be more expressive of the idea which the

prophet wished to convey to the *Jews*, who wanted to fly to *Egypt* and *Ethiopia*, to avoid falling into the hands of the *Affyrians*; but were to be disappointed by the fall of these two empires.

All commentators have unanimously understood *Affyria* by the *Dove*, and have translated the above passage accordingly. CAPO'TE¹¹, or the *Assyrian Dove*, was also mentioned in a song, current in these countries, and which seems to refer to some misfortune that had befallen the *Affyrians*. The 56th Psalm is directed to be sung to the tune of that song, which was known to every body, and for this purpose the first verse, as usual, is inserted. "The dove of distant countries is now struck dumb."

The Hindus further insist, that the black stone in the wall of the *Caaba*, is no other than the *Linga* or *Phallus* of MAHA'-DEVA'; and that when the *Caaba* was rebuilt by MOHAMMED, (as they affirm it to have been) it was placed in the wall, out of contempt, but the new converted pilgrims would not give up the worship of the black stone, and sinistrous portents forced the ministers of the new religion to connive at it. Arabian authors also inform us that stones were worshipped all over Arabia, particularly at *Mecca*; and AL-SHANRESTAVI^{*} says, that the temple at *Mecca* was dedicated to ZOKAL or KYAVUN, who is the same with SATURN. The author of the *Dabistan* declares positively that the *Hajar al aswad*, or the black stone, was the image of KYAVUN. Though these accounts somewhat differ from those in the *Purâns*, yet they shew that this black stone was the object of an idolatrous worship from the most remote times.

* SALL'S *Koran*.

THE Mussulmans, in order to palliate their idolatry towards it, have contrived other legends. KYEVUN is the CAVUN of Scripture, also called REMPHAN, which is interpreted the God of Time. If so, CHYUN, or KYEVUN, must be MAHA'-DE'VA, called also MAHA'-CA'LA, a denomination of the same import with REMPHAN, the Egyptians called Horus, the lord of time, and Horus is the same with HARA, or MAHA'-DE'VA *

THE reason of this tradition is, that the *Sabians*, who worshipped the seven planets, seem to have considered SATURN as the lord of time, on account of the length of its periodical revolution, and it appears from the *Dalistan*, that some ancient tribes in Persia had contrived a cycle of years, consisting of the revolution of SATURN repeatedly multiplied by itself.

ASC'HALA-ST'RA'b, or *Aśvala-śt'ra-ba*, is obviously *Ascalon*, where SEMIRAMIS was born, according to Diodorus Siculus, or, according to the *Paranas*, there she made her first appearance.

MAHA-BHA'GA'-ST'RA'a is the *st'ra-ba* or place of SAMI'-RA'MA', in the characters of MAHA-BHA'GA', or the great and prosperous goddess. This implies also that she bestowed greatness and prosperity on her votaries.

WE cannot but suppose that the *st'ra-ba* of MAHA-BHA'GA' is the ancient town of *Mabeg*, called now *Menbigz* and *Menbig*, the Greeks called it *Hieropolis*, or the holy city it was a place of great antiquity, and there was a famous temple dedicated to the *Syrian* goddess, whose statue of gold was placed in the center, between those of JUPITER and JUNO. It had a

* See Dissertation on *Egypt*, &c. in the third volume of the *Antique Researches*
golden

golden dove on its head, hence some supposed it was designed for SEMIRAMIS, and it was twice every year carried to the sea-side in procession. This statue was obviously that of the great goddess, or MAHA'BHA'GA'DEVI', whose history is intimately connected with that of the Dove in the western mythologists, as well as in the Purâns.

AN ancient author * thus relates her origin "dicitur et Euphratis fluvio ovum pisces Columba ad sedisse dies plurimos, et exclusisse Deam benignam et misericordem hominibus ad bonam vitam" "It is related that a Dove hatched the egg of a fish, near the Euphrates, and that after many days of incubation came forth the Goddess, merciful and propitious to men, on whom she bestows eternal bliss" Others say that fishes rolled an egg upon dry land, where it was hatched by a Dove, after which appeared the Syrian Goddess.

Her origin is thus related in the Purâns: The Yavanas having for a long time vexed the inhabitants of Cylîn-dûsp, they at last applied for protection to MA'H'A-BHA'GA'-DI'VI', who had already appeared in that country in the characters of SAMI-RA'MA' and CAPORE'SI', or ISI', in the shape of a Dove; they requested also that she would vouchsafe to reside amongst them. The merciful Goddess granted their request, and the place where she made her abode was called the *st-bân*, or place of MAHA'BHA'GA'.

The *Syrian* name of *Mubog* is obviously derived from MAHA'BHA'GA. This contraction is not uncommon in the western dialects, derived from

* LUCIUS AMPHILIAS AD MACKIN

the *Sassans*; and Hesychius informs us that the Greeks pronounced the Hindu word *Mahé* great, *Me*. *Mahé* is mentioned by Pliny, where we read *Magog*, but Mr. Danville shows that it should be *Mahé*. I conclude from some manuscript copies. This is also confirmed by its present name, which is to this day *Menzig* or *Mahig*. We find it also called *Bom-bukē* (波毬) *Bambye*; and in Niebuhr's Travels it is called *Bom-badsche*: I suppose for *Bambākē* or *Mambigā*—but this is equally corrupted from *Mā'abbigā*. In the same manner we say *Bombay* for *Mumba*; and what is is called in India *Bambū* or *Pambū*, is called *Mamba* in *Tibet*.

The temple of *Mahé* was frequented by all nations; and amongst them were pilgrims from *India*, according to Lucian, as cited by the authors of the Ancient Universal History.

Maboc, or *Hierapolis*, was called also *Old Ninus*, or *Ninætib*, according to AMMIANUS MARCELLINUS, and PHILOSTRATUS: and there is no mistake in Diodorus Siculus and Ctesias, when they assert that there was a town called *Ninætib* near the *Euphrates*. Scripture also seems to place *Ninætib* thereabout: for it is said that *Rexez* was between *Ninætib* and *Calach*. And the situation of *Rexez*, called also *Rexæ* by ancient authors, and *Roxæ* by the moderns, is well known, as well as that of *Calach* on the banks of the *Lycus*, now the *Zab*, to the eastward of the *Tigris*. *Ninætib*, of course, must have been to the westward of these two places, and falls where the *Old Ninus* is pointed out by AMMIANUS, PHILOSTRATUS, &c.

Two places of that name are mentioned in the *Purânâs*, under the name of *Lilâr'ba*, the *sr'ba* or place of *Li'l'sa* or *NINUS*. There can be no doubt, in my humble opinion, of their identity, for *SAM'-RA'MA'* is ob-

viously SEMIRAMIS NINUS was the son of BELUS, and, according to the *Purâns*, LI'LÉ'SA sprung from BA'LE'IWARA, or BALESÀ; for both denominations, being perfectly synonymous, are indifferently used in the *Purâns*.

NINIVEH on the *Tigris*, seems to be the *st b m* of LI'LÉ'SA, where he laid aside the shape and countenance of BA'LE'SA, and assumed that of LI'LÉ'SA. The other place of LI'LÉ'SA, which SAMI'-RA'MA', delighted with the beauty of the spot, chose for the place of her residence, is *Hierapolis*, called also *Ninus* or *Nineveh* hence we find her statue in the temple of MAHA'-BHA'GA'. It is said to have been situated near a deep pool, or small lake, called from that circumstance *Hradancis*, and the pool near the temple of *Hierapolis* was described to be two hundred fathoms deep SAMI'-RA'MA' is represented in a most amiable light in the *Purâns*, as well as her consort LI'LÉ'SWARA, or LI'LÉ'SA.

STEPHANUS of *Byzantium* says that NINUS lived at a place called *Telane*, previous to his building *Ninruel*; but this place, I believe, is not mentioned by any other author.

NINUS is with good reason supposed to be the ASSUR of Scripture, who built *Nineveh*; and ASSUR is obviously the IS'WARA of the *Purâns*, with the title of LI'LÉ'SWARA, LI'LÉ'SA, or NINUS. The word I'SWARA, though generally applied to deities, is also given in the *Purâns* to Kings, it signifies *Lord* and *Sovereign*.

WITH respect to the monstrous origin of BE'LÉ SA, and the thirty-one *Pballs*, my *Pandit*, who is an astronomer suspects it to be an attempt to reconcile the course of the moon to that of the sun, by dividing the syn-

dical revolution into thirty-one parts, which may represent also three hundred and ten years. As this correction is now dissolved, he could give me no further information concerning it. To the event related is ascribed the origin of the *Linga* or *Phallus*, and of its worship. It is said to have happened on the banks of the *Cumud-rati*, or *Euphrates*, and the first *Phallus*, under the name of *Balefusra-Linga*, was erected on its banks. This is confirmed by DIODORUS SICULUS, who says that SEMIRAMIS brought an *Obelisk* from the mountains of *Armenia*, and erected it in the most conspicuous part of *Babylon*. It was 150 feet high, and is reckoned, by the same author, as one of the seven wonders of the world*. The Jews in their *Talmud* allude to something of this kind, speaking of the different sorts of earths of which the body of *Adam* was formed, they say that the earth which composed his generative parts, was brought from *Babylonia*.

THE next place of worship is the *stūpa* of *Anā'ya-andēvi'* this is obviously the *anā'ya* (*Heron* its *Anas*) of STRABO, or the temple of the goddess *Anāya*, or *Anāias*, with its burning spring of *Naphtha*. They are upon a hillock, called *Corcora* by the ancients, and now known by the name of *Corcor*. It is near *Aerkoo*, and to the eastward of the *Tigris*. To this day it is visited by pilgrims from *India*, and I have been fortunate enough to meet with four or five who had paid their devotions at this holy place. I consulted them separately, and their accounts were as satisfactory as could be expected. They call it *Juddha-muc'hi*, or the flaming mouth.

THIS conflagration is minutely described by DIODORUS SICULUS†, who says, that in former times a monster called *Aleida*, who vomited

* Diod. Sic lib. 3 cap. 4. † Diod. Sic lib. 4 cap. 5.

flames appeared in *Pbygia*; hence spreading along mount *Taurus*, the conflagration burst down all the woods, as far as *India* then, with a retrograde course, swept the forests of mount *Lisan*, and extended as far as *Egypt* and *Africa* at last a stop was put to it by *Mi'nerva*.

The *Pbygians* remembered well this conflagration and the flood which followed it; but as they could not conceive that it could originate from a benevolent Goddess, they transformed her into a monster, called *Alcida*. *Alcida*, however, is an old Greek word, implying strength and power, and is therefore synonymous with *Sáca* or *Sáctá-dévi*, the principal form of *S'a'mi'-Ra'ma'*, and other manifestations of the female power of nature

INDEED the names and titles of most of the *Babylonian* deities are pure *Sanskrit* and many of them are worshipped to this day in *India*, or at least their legends are to be found in the *Puranás*

THUS *SEMIRAMIS* is derived from *Sami-Ramis*, or *Sami-Rama*, and *Sami-Ráma-dévi*

MILITTA from *Milita-Devi*, because she brings people together (*Cun-nuba*)

SHACKA, or *Saca*, is from the *Sanskrit* *Sácta-dévi*, pronounced *Saca* in the vulgar dialects it implies strength and power

SLAMBA, or *SALAMBO*, is from *Sarvámba*, often pronounced *Sálwámba* it signifies the mother of all and she is the *Magna Mater* of the western mythologists

Dēvi is called also *A'ntergais*, or *Antergata*, because she resides within the body, or in the heart, and thereby gives strength and courage. This is the Goddess of Victory in India, and they have no other. It is declared in the *Puranas*, that she was called *A'NTRAST'HI* (a title of the same import with the former) in the forests of *Yishulu-van*, on the banks of the river *Tamasa*, in *Chāndra-dwip*, from *A'nirast'hi* the old *Brahms*, or rather the *Romas*, made *Andrasse*.

The Babylonian Goddess was called also the *Queen of Heaven*, and to this day a form of *Dēvi*, with the title of *Sverga-rādm-dēvi*, or *Dēvi*, *Queen of Heaven*, is worshipped in India.

RHEA is from *Hriya-dēvi*, or the bashful or modest Goddess

RĀKH is from *Rāckswara* a name of *Lunus*, from one of his favourite wives called *Rāka* it signifies also the full orb of the Moon

NABO, OR NEBO, is *I'swara*, with the title of *Nava*, or *Naba*, the celestial

NARÇAL is from *Anargalswara*, that is, he who is independent

ADHARME'SWARA is from *A'dharm-swara*, for *I'swara* and *Melech*, in the *Chaldean* language, are synonymous

ADHARME'SWARA is thus called, because he punishes those who deviate from the paths of justice and rectitude

ANAM-MELECH is from *Anah-ēswara*, or *I'swara*, who, though above

NIMROD IS FROM *Nima-Rudi*, because RUDRA OR MAHA'-DEVA gave him half of his own strength

VAHNI-ST'HĀ'N, called also *Agni-si'bān* is said in some *Puranas* to be in *Cusba-duip*; and in others, to be on the borders of it. It includes all the mountainous country from *Pbrygia* to *Herat*. *Vahni-st'hān* and *Agni-si'bān* are denominations of the same import, and signify the country or seat of fire, from the numerous volcanoes and burning springs which are to be found all along this extensive range of mountains. The present *Azar-Bāyān* is part of it, and may be called *Vahni-si'bān* proper. *Azar*, in the old *Persian*, signifies fire, and *Bāyān*, a mine or spring. This information was given to me by Mr DUNCAN, resident of *Benares*, who was so kind as to consult on this subject with MARDI-ALI-KHĀ'N, one of the *Aimils* of the *Zemindary of Benares*. He is a native of *Khorassan*, and well acquainted with the antiquities of his own country, and of *Iran* in general. According to him, the principal *Bāyān*, or spring of fire, is at a place called *Bāut-Cubeh**, in *Azar-Bāyān*. *Vahni-st'hān* is called also *Vahni-vyāpta*, from the immense quantity of fire collected in that country. There are many places of worship remaining throughout *Iran*, still resorted to by devout pilgrims. The principal are *Balk* and the *Pyreum*, near *Herat*. *Hinglaz*, or *Analoje*, near the sea, and about eighty miles from the mouth of the *Indus*: it is now deserted, but there remain twenty-four temples of *Bhāvā'ni*. This place, however, is seldom visited, on account of the difficulties attending the journey to it.

GANGA'WA'Z, near *Gongo*, on the *Persian Gulph*, another place of pilgrimage, where are many caves, with springs in the mountains

* It is vulgarly called *Bala*.

THE *sr̥bón* of *Calyâna-Râya* and *Gîvanda-Râya*, two incarnations of *VISHNU*, is in the centre of *Busros*, on the banks of the *Euphrates*; and there are two statues carefully concealed from the sight of the *Mussulmans*.

ANA'TA'SA'-DA'VI-ST'HA'N has been already mentioned; and the great *Yâdû-muc'br* is the designation of the springs of *Nephrû*, near *Baku*.

THERE is also another *Hindu* place of worship at *Baberein* (*El Kâfî*) and another at *Astrakan*, where the few *Hindus* who live there worship the *Volga*, under the name of *Surya-muc'bî-Gângâ*; the legends relating to this famous river are to be found in the *Purânâs*, and confirm the information of the pilgrims who have visited these holy places. There are still many *Hindus* dispersed through that immense country; they are unknown to the *Mussulmans*, and they pass for *Guebris*, as they call them here, or *Parfis*. There is now at *Berares* a *Brâhmañ* of the name of *Da'vi-da's*, who is a native of *Mesched*, he was introduced lately to my acquaintance by Mr *DURCKIN*, and he informed me that it was supposed there were about 2000 families of *Hindus* in *Khorassan*, that they called themselves *Hindî*, and are known to the *Mussulmans* of the country under that appellation.

THIS, in my opinion, accounts for the whole country to the south of the Caspian sea, from *Khorassan* and *Astrakhan*, as far as the Black sea being called *India* by the antients, and its inhabitants in various places *Sindi* it is implicitly confirmed by the *Purânâs*, in which it is said that the *Surya-muc'bî-Gângâ*, or *Volga*, falls into the *Sea of Sind*. The *Hindus* near *Baku* and at *Astrakan*, call it the *new sea*, because they say it did not exist formerly. They have legends about it, which, however, my learned friend *Vidyâ'-nâ'thî* could not find in the *Purânâs*.

ACCORDING to the pilgrims I have consulted, there are about twenty or thirty families of *Hindus* at Balk; and Eusebius informs us, that there were *Hindus* in Bactriana in his time. There are as many families at Gan-gáwaz, or Congo; about one hundred at Buffera; and a few at Babarens these informed PURA'NA'-PURI¹, a *Tóys* and famous traveller, called also UAD'RWAHA'HU, because he always keeps his hands elevated above his head, that formerly they corresponded and traded with other *Hindus* on the banks of the river *Nila*, in the country of *Mifr*, and that they had once a house or factory at *Cairo*; but that, on account of the oppression of the *Turks* and the roving *Arabs*, there had been no intercourse between them for several generations. There are no *Hindus* at *Anayásádér*, or *Corcoor*; but they compute a large number in the vicinity of *Baku*, and *Derbend*. The *Sbreffis* at *Sámokhi* are *Baryans* or *Hindus*, according to the Dictionary of Commerce, and of *Trevoux*, as cited in the French Encyclopédia*.

THE *Cabárís* who live near *Derbend*, are *Hindus*, as my friend PURA'NA-PURI was told, at *Baku* and *Abrachan*, in his way to *Moscou*, and their *Bróbmens* are said to be very learned, but, as he very properly observed, this ought to be understood relatively on a comparison with the other *Hindus* in *Perse*, who are extremely ignorant.

His relation is to a great measure confirmed by STRAHLENBERG, who calls them *Caba* and *Cubatzis*; and says that they live near *Derbend*, and are a distinct people, supposed to be *Jews*, and to speak still the *Hebrew* language.

* Ad vocem *Sbreffi*.

The *Samsari* characters might easily be mistaken for the black *Hether* letters by superficial observers, or persons little conversant in subjects of this nature.

The *Arañi*, figuratively called the daughter of the SAMI-tree, and the mother of fire, is a cubic piece of wood about five inches in diameter, with a small hole in the upper part. A stick of the same sort of wood is placed in this cavity, and put in motion by a string held by two men, or fired to a bow. The friction soon produces fire, which is used for all religious purposes, and also for dressing food. Every *Brabman* ought to have an *Arañi*, and when they cannot procure one from the SAMI-tree, which is rather scarce in this part of *Inde*, they make it with the wood of the *Arvati'ba*, or *Pippala*-tree. This is also a sacred tree, and they distinguish two species of it, the *Pippala*, called in the vulgar dialects *Pipal*, and the *Chelat-palasha*. The leaves of this last are larger, but the fruit is smaller, and not so numerous as in the former species. It is called *Chelat-palasha*, from the tremulous motion of its leaves. It is very common in the hills, and the vulgar name for it is *Pipala*, from which I suppose is derived the Latin word *Populus*, for it is certainly the trembling *Poplar* or *Aspen*-tree.

The festival of SEMIRAMIS falls always on the tenth day of the lunar month of *Aswina*, which this year coincided with the fourth of *October*. On this day lamps are lighted in the evening under the *Sami*-tree, offerings are made of rice and flowers, and sometimes strong liquors; the votaries sing the praise of SAMI'-RAMA'-DEVI' and the *Semi*-tree; and having worshipped them, carry away some of the leaves of the tree, and earth from the roots, which they keep carefully in their houses till the return of the festival of SEMIRAMIS in the ensuing year.

XXVII

ON THE ANDAMAN ISLANDS

BY LIEUTENANT R. H. COLEBROOKE.

THE *Andaman* islands are situated on the eastern side of the bay of Bengal*, extending from north latitude $10^{\circ} 39'$ to $13^{\circ} 40'$. Their longitude is from $92^{\circ} 6'$ to $92^{\circ} 59'$ east of Greenwich. The *Great Andaman*, or that portion of the land hitherto so called, is about one hundred and forty British miles in length, but not more than twenty in the broadest part. Its coasts are indented by several deep bays, affording excellent harbours, and it is intersected by many vast inlets and creeks, one of which has been found to run quite through, and is navigable for small vessels. The *Little Andaman* is the most southerly of the two, and lies within thirty leagues of the island *Carnicobar*. Its length is 28 miles by 17 in breadth, being more compact, but does not afford any harbour, all-

* It is perhaps a wonder, that islands so extensive, and lying in the track of so many ships, should have been, till of late years, so little known, that while the countries by which they are almost encircled, have been increasing in population and wealth, having been from time immemorial in a state of tolerable civilization, these islands should have remained in a state of nature, and their inhabitants plunged in the grossest ignorance and barbarity.

This wild appearance of the country, and the untractable and ferocious disposition of the natives, have been the causes, probably, which have deterred navigators from frequenting them, and they have justly dreaded a shipwreck at the *Andaman* more than the danger of foundering in the ocean, for although it is highly probable, that in the course of time many vessels have been wrecked upon their coasts, no instance does not occur of any of the crews being saved, or of a single person returning to give any account of such a disaster.

though tolerable anchorage is found near its shores. The former is surrounded by a great number of smaller islands.

The shores of the main island, and indeed of all the rest, are in some parts rocky, and in a few places are lined with a smooth and sandy beach, where boats may easily land. The interior shores of the bays and creeks are almost invariably lined with mangroves, prickly fern, and a species of wild rattan; while the inland parts are covered with a variety of tall trees, darkened by the intermixture of creepers, parasite plants, and underwood; which form altogether a vast and almost impervious forest, spreading over the whole country. The smaller islands are equally covered with wood, they mostly contain hills of a moderate height, but the main island is distinguished by a mountain of prodigious bulk, called from its shape the Saddle-Peak; it is visible in clear weather at the distance of twenty-five leagues, being nearly two thousand four hundred feet in perpendicular height. There are no rivers of any size upon these islands, but a number of small rills pour down from the mountains, affording good water, and exhibiting in their descent over the rocks a variety of little cascades, which are overshadowed by the supercumbent woods.

The soil is various in different parts of these islands^{*}; consisting of black rich mould, white and dark coloured clays, light sandy soil, clay mixed with pebbles of different colours, red and yellow earth, but the black mould is most common. Some white cliffs are met with along the

* I am indebted to Major Kyn and Captain ALEXANDER BRAIN for many of the subsequent remarks. The latter was employed by government in surveying these islands, and has the credit of having furnished the first complete and correct Chart of the Andamans.

shores,

shores, which appear to have been originally clay, with a mixture of sand, hardened by time into the consistence of stone, but might be cut, and would probably answer for building. Near the southern extremity of the great island, where it is mountainous and rocky, some indications of minerals have appeared, particularly of tin. There is also a kind of free-stone, containing a yellow shining spar, resembling gold-dust. Some of the hills bordering the coasts exhibit blue shistous strata at their bases, with the Brescia or pudding-stone, and some specimens of red ochre have been found, not unlike cinnabar.

The extensive forests with which these islands are over-run, produce a variety of trees fit for building, and many other purposes. The most common are the poon, dammer, and oil-tree; red wood, ebony, cotton-tree, and buddeem or almond-tree, soondry, chingy, and bindy; Alexandrian laurel, poplar, and a tree resembling the satin-wood, bamboos, and plaas, with which the natives make their bows, cutch, affording the extract called *Terra Japonica*, the Melori, or *Nicobar* bread-fruit, alocs, ground rattans, and a variety of shrubs. A few fruit-trees have been found in a wild state, but it is remarkable that cocoa-nuts, so common in other tropical countries, are here almost unknown. Many of the trees afford timbers and planks fit for the construction of ships, and others might answer for masts. A tree grows here to an enormous size, one having been found to measure thirty feet in circumference, producing a very rich dye, that might be of use in manufactures.

The only quadrupeds yet discovered in these islands are wild hogs, monkeys, and rats. Guanas, and various reptiles abound, among the

latter is the green snake, very venomous, centipedes of ten inches long, and scorpions.

A variety of birds are seen in the woods; the most common are pigeons, crows, parroquets, king fishers, curlews, fish-hawks, and owls. A species of humming bird, whose notes are not unlike the cuckoo, is frequently heard in the night.

The principal caverns and recesses, composing part of the coast, give shelter to the birds that build the edible nests an article of commerce in the *Corma* market, where they are sold at a very high price. It has been thought that these nests are formed from a glutinous matter exuding from the sides of the caverns, where these birds, during nidification, resort. It is not known whether they emigrate, but the period of their incubation takes place in December, and continues till May. Not more than two white spotless eggs have been found in their nests, but they have been further supposed to breed monthly.

The harbours and inlets from the sea are plentifully stocked with a variety of fish, such as mullets, soles, pomfret, rock-fish, skate, gurnards, sardinas, roe-balls, sable, shad, alose, cockup, grobers, seer-fish, old wives, yellow tails, snappers, devil-fish, cat-fish, prawns, shrimps, crayfish, and many others a species resembling the whale, and sharks of an enormous size, are met with. A variety of shell-fish are found on the reefs, and in some places oysters of an excellent quality. Of the many madrapores, corallines, zoophites, and shells, none have yet been discovered but such as are found elsewhere.

The Andaman islands are inhabited by a race of men the least civilized, perhaps, in the world, being nearer to a state of nature than any people we read of. Their colour is of the darkest hue, their stature in general small, and their aspect uncouth. Their limbs are ill formed and slender, their bellies prominent, and, like the Africans, they have woolly heads*, thick lips, and flat noses. They go quite naked, the women wearing only at times a kind of tassel, or fringe, round the middle, which is intended merely for ornament, as they do not betray any signs of bashfulness when seen without it. The men are cunning, crafty, and revengeful; and fre-

* In this respect they differ from all the various tribes inhabiting the continent of Asia, or its islands. A story is somewhere told of a ship full of African slaves, of both sexes, having been cast away at the Andamans, and that having put to death their masters and the ship's crew, they spread themselves over, and peopled the country. This story does not appear to have been well authenticated, nor have I ever met with the particular author who relates it. They have been asserted by some to be cannibals, and by others (*vide Captain HAMILTON's Voyage, and all the Geographical Dictionaries*) to be a harmless and inoffensive people, living chiefly on rice and vegetables. That they are cannibals has never been fully proved, although from their cruel and sanguinary dispositions, great voracity, and cunning modes of lying in ambush, there is reason to suspect, that in attacking strangers they are frequently impelled by hunger as they invariably put to death the unfortunate victims who fall under their hands. No positive instance, however, has been known of their eating the flesh of their enemies although the bodies of some whom they have killed, have been found mangled and torn. It would be difficult to account for their unrelenting hostility to strangers, without ascribing this as the cause unless the story of their origin, as abovementioned, should be true, in which case they might probably retain a tradition of having once been in a state of slavery. This in some degree would account for the rancour and enmity they shew, and they would naturally wage perpetual war with those whom they might suspect were come to invade their country, or enslave them again.

It would appear that these islands were known to the ancients (see Major RENNELL's Memoirs, introduction, page xxix.) They are mentioned, I believe, by MURCO POLO, and in the ancient accounts of India and China, by two Mahomedan travellers, who went to those parts in the ninth century (translated from the Arabic by EUSTACE REINHOLD) may be seen the following curious account. " Beyond these two islands (*Nyabaher*, probably Nicobar) lies the sea of Andaman; the people on this coast eat human flesh quite raw, their complexion is black, their hair frizzled, their countenance and eyes frightful, their feet are very large and almost a cubit in length, and they go quite naked. They have no embankments, if they had, they would drown all the passengers they could lay hands on, &c."

quently

quently express their aversion to strangers, in a loud and threatening tone of voice, exhibiting various signs of defiance, and expressing their contempt by the most indecent gestures. At other times they appear quiet and docile, with the most insidious intent. They will affect to enter into a friendly conference, when after receiving with a show of humility whatever articles may be presented to them, they set up a shout, and discharge their arrows at the donors. On the appearance of a vessel or boat, they frequently lie in ambush among the trees, and send one of their gang, who is generally the oldest among them, to the water's edge, to endeavour by friendly signs to allure the strangers on shore. Should the crew venture to land without arms, they instantly rush out from their lurking places, and attack them. In these skirmishes they display much resolution, and will sometimes plunge into the water to seize the boat; and they have been known even to discharge their arrows while in the act of swimming. Their mode of life is degrading to human nature, and, like brutes, their whole time is spent in search of food. They have yet made no attempts to cultivate their lands, but live entirely upon what they can pick up, or kill. In the morning they rub their skins with mud, or wallow in it like buffaloes, to prevent the annoyance of insects, and daub their woolly heads with red ochre, or cinnabar. Thus attired, they walk forth to their different occupations. The women bear the greatest part of the drudgery in collecting food, repairing to the reefs at the recess of the tide, to pick up shell-fish, while the men are hunting in the woods, or wading in the water to shoot fish with their bows and arrows. They are very dexterous at this extraordinary mode of fishing, which they practice also at night, by the light of a torch. In their excursions through the woods, a wild hog sometimes rewards their toil, and affords them a more ample repast. They broil their meat or fish over a kind of grid, made of bamboos, but use no salt, or any other seasoning.

The *Andamaners* display at times much colloquial vivacity, and are fond of singing and dancing, in which amusements the women equally participate. Their language is rather smooth than guttural, and their melodies are in the nature of recitative and chorus, not unpleasing. In dancing, they may be said to have improved on the strange republican dance asserted by VOLTAIRE to have been exhibited in *England* " *On dançant à la " ronde, chacun donne des coups de pieds à son voisin, et en reçoit autant*" The *Andamaners* likewise dancing in a ring, each alternately kicking and slapping his own breech, *ad libetum*. Their salutation is performed by lifting up a leg, and smacking with their hand the lower part of the thigh.

Their dwellings are the most wretched hovels imaginable. An *Andaman* hut may be considered the rudest, and most imperfect attempt of the human race to procure shelter from the weather, and answers to the idea given by VIRGIL, of the buildings erected by the earliest inhabitants of the earth. Three or four sticks are planted in the ground, and fastened together at the top, in the form of a cone, over which a kind of thatch is formed with the branches and leaves of trees. An opening is left on one side, just large enough to creep into; and the ground beneath is strewed with dried leaves, upon which they lie. In these huts are frequently found the skulls of wild hogs, suspended to the roofs.

Their canoes are hollowed out of the trunks of trees by means of fire and instruments of stone, having no iron in use amongst them, except such utensils as they have procured from the *Europeans* and sailors who have lately visited these islands, or from the wrecks of vessels formerly stranded on their coasts. They use also rafts, made of bamboos, to transport themselves across their harbours, or from one island to another. Their arms

arms have already been mentioned in part, I need only add, that their bows are remarkably long, and of an uncommon form; their arrows are headed with fish-bones, or the tusks of wild hogs; sometimes merely with a sharp bit of wood, hardened in the fire, but these are sufficiently destructive. They use also a kind of shield, and one or two other weapons have been seen amongst them. Of their implements for fishing, and other purposes, little can be said. Hand-nets of different sizes are used in catching the small fry, and a kind of wicker-basket, which they carry on their backs, serves to deposit whatever articles of food they can pick up. A few specimens of pottery-ware have been seen in these islands.

The climate of the *Andaman* islands is rather milder than in *Bengal*. The prevailing winds are the south-west and north-east monsoons, the former commencing in May, and bringing in the rains, which continue to fall with equal, if not greater, violence till November. At this time the north-east winds begin to blow, accompanied likewise by showers, but giving place to fair and pleasant weather during the rest of the year. These winds vary but little, and are interrupted only at times by the land and sea-breezes. The tides are regular, the floods setting in from the west, and rising eight feet at the springs, with little variation in different parts. On the north-east coast it is high water at the full and change of the moon at 2° 33' The variation of the needle is 2° 30' easterly

SPECIMEN OF THE ANDAMAN LANGUAGE.

<i>Andam</i> <i>an</i> <i>island</i> , or native Country,	<i>Mincopic</i> ,	<i>Ant</i> , white in its winged state,	<i>Dooghay</i> ,
<i>Ant</i> - - -	<i>Ahooda</i> ,	<i>Arrow</i> ,	<i>Bustohic</i> , <i>Ant</i> ,

Arm,	-	Pile	Crow,	-	Nohah,
Bat,	-	Vilvila	To cut,	-	Hojecha
Bamboo,	-	Otallic,	Door,	-	Tang,
Bangle,	-	Alai,	To drink	-	Mcengohes
Basket,	-	Tetegay,	Earth,	-	Totongriangec
Black,	-	Cheegheooga,	Ear,	-	Quaka,
Blood,	-	Cochengohhee,	To eat,	-	Ingelholhah,
Read,	-	Tahce,	Elbow,	-	Mohalajabay,
To Beat,	-	Ingo taheya,	Eye,	-	Jabay
Belly,	-	Napoy,	Finger,	-	Momay,
To bind,	-	{ Totobaoto go- ley toha,	Fire,	-	Mona,
Bird,	-	Lohay,	Fish,	-	Nabohhee,
To bite,	-	Moepaka,	Fish-hook,	-	Atabca,
Boat,	-	Koccey,	Flesh,	-	Woohee,
Boar,	-	Stohee,	Foot,	-	Gookec,
Bow,	-	Tongie,	Friend,	-	Padoo,
Bow-string,	-	Geetahue,	Frog,	-	Etolay
Breast,	-	Cah,	Goat,	-	Kokee,
Bone,	-	Geetongay.	To go,	-	Oossecma,
Charcoal,	-	Wehee,	Grass,	-	Tohobee
Chin,	-	Pitang,	Hair,	-	Orree,
Cold,	-	Choma,	Hand,	-	Gonic or Monie
Coco-nut,	-	Bollates,	Head,	-	Tsbay
Cotton cloth,	-	Pangapee,			Honey,
To cough,	-	Irigotahey,			

Honey,	-	Lorkay,	Pain,	-	Alooda,
Hot,	-	Hooloo,	Palm,	-	Dolai,
House,	-	Beaday,	Paper,	-	Pangpoy,
Jack Fruit,		Abay,	Pike,	-	Woobalay,
Jackall,	-	Omay,	To pinch,	-	Ingee genecha,
Iron, or any Metal,	Dohie		Plaintain-tree,		Cholellee,
Kiss,	-	Itolie,	Pot,	-	Bootchoohie,
Knee,	-	Ingolay	To pull,	-	{ Totobati Ge- hooa
To laugh,	-	Onkeomai,	Rain,	-	Oye,
Leaf of a tree,		Tongolie,	Red,	-	Gheallop,
Leg,	-	Chigie	Road,	-	Echollee,
Man,	-	Camolan,	To run,	-	Cohabela.
Moon,	-	Tabic,	To scratch,	-	Inkahcy aha,
Musequito,		Hohenangee,	Seed,	-	Keetongay,
Mouth,	-	Morna	Sheep *,	-	Neena,
Nail,	-	Mobejedanga,	Smoke,	-	Boleeneet,
Neck,	-	Tohic,	To sing,	-	Gokobay,
Net,	-	Barolee,	To sit down,		Gongtohee,
Nose,	-	Mellee.	Shadow,	-	Tangtohee,
Paddle, or Oar,		Mecal,	To sleep,	-	Comoha,
			To sneeze,	-	Oh-cheka,
			To spit,	-	Inkahoangy,
			To swim,	-	Quaah,

* It may appear surprising that they should have names for animals that are not found in their islands. This circumstance may tend to confirm the story of their origin.

To swallow,	Beebay,	Thunder and light-	} Maufay. ning.
Sky,	- Madamo,		
Star,	- Chelobay,		
Stone,	- Woolay,	To wash,	Inga doha,
Sun,	- Ahay,	Wasp,	Bohomakee,
To take up,	- Catoha,	To walk,	Boony-jaoa,
Thigh,	- Poye,	Water,	Migway,
Teeth,	- Mahoy,	To weep,	Oana-wannah,
Tongue,	- Talié,	Wind,	Tomjamay,
		Wood,	Tanghee



XXVIII

ON BARREN ISLAND AND ITS VOLCANO

BY LIEUTENANT R. H. COLEBROOKE

ABOUT fifteen leagues to the eastward of the *Andaman* islands lies an island which navigators, from its appearance, have justly called *Barren*. On the tenth of May 1787, Captain Kyd and myself, being aboard the *Tartar* Snow, on a voyage to *Pulo Perang*, *Borneo* / / sight, bearing SSW seven leagues distant, saw a column of smoke ascending from its summit, and by the help of our glasses, plainly perceived from a hill nearly in its center, around which appeared a valley, or crater, but being decalmed, we could not approach nearer to examine it.

The following account of this remarkable island is given by Mr. Eliot, in his report of the survey of the *Andaman* islands:

"I reached that coast March the 21st, and landed on *Borneo* / / the 24th — The volcano was in a violent state of eruption, but did not discharge volumes of smoke, and frequently showers of red hot lava. Some were of a size to weigh three or four tons, and being driven one hundred yards past the foot of the cone. There were three eruptions while we were close to it, several others

" hot stones rolled down the sides of the cone, and bounded a considerable way beyond us. The base of the cone is the lowest part of the island, and very little higher than the level of the sea. It rises with an acclivity of $32^{\circ} 17'$ to the height of 1800 feet nearly, which is also the elevation of the other parts of the island.

" FROM ITS PRESENT FIGURE, it may be conjectured, that the volcano first broke out near the centre of the island, or rather towards the north-west, and in a long process of time by discharging, consuming, and undermining, has brought it to the present very extraordinary form, of which a very correct drawing by Lieutenant WALES will impress a distinct idea.

" THOSE PARTS OF THE ISLAND that are distant from the volcano, are thinly covered with withered shrubs and blasted trees. It is situated in latitude $12^{\circ} 15'$ north, and fifteen leagues east of the northernmost island of the Archipelago*, and may be seen at the distance of twelve leagues in clear weather. A quarter of a mile from the shore, there is no ground with 150 fathoms of line."

R E M A R K.

FROM THE VERY SINGULAR AND UNCOMMON APPEARANCE of this island, it might be conjectured that it has been thrown up entirely from the sea, by the action of subterranean fire. Perhaps, but a few centuries ago, it had not reared itself above the waves, but might have been gradually

* The easternmost cluster of the Andaman islands.

emerging

emerging from the bottom of the ocean long before it became visible, till at length it reached the surface, when the air would naturally assist the operation of the fire that had been struggling for ages to get vent, and it would then burst forth. The cone or volcano would rapidly increase in bulk, from the continual discharge of lava and combustible matter, and the more violent eruptions which might have ensued at times, when it would throw up its contents to a greater elevation and distance, might have produced that circular and nearly equidistant ridge of land we see around it.

If this conjecture should gain credit, we may suppose not only many islands, but a great portion of the habitable globe, to have been thrown up by volcanos, which are now mostly extinguished. Many hills and islands now clothed with verdure, bear evident marks of having once been in this state. A ground plan of *Barren island* would so exactly resemble some of the lunar spots, as seen through a good telescope when their shadows are strong, that I cannot help thinking there are also many more volcanos in the moon than have yet been discovered by a celebrated modern astronomer*. Those remarkable valleys, or cavities, discernible in her disk, have many of them a single hill in their center, and are surrounded by a circular ridge of a similar appearance.

QUESTION May not the moon be surrounded by an atmosphere of pure air, which differing essentially in its properties from the atmosphere of our earth, might account for some of the phenomena of her appearance to us? An atmosphere of this sort might be so transparent as not to

* HERSCHEL

refract

refract the rays of light in a sensible degree, or to produce the least change in the appearance of a star passing through it when an occultation is observed. At the same time, it would increase in a high degree, the inflammability and combustion of matter, so as to produce volcanos; and if we suppose the moon to have neither seas nor vegetation on her surface, the sun's light would be more strongly reflected than from the earth, where the rays are liable to absorption by water and vegetables.

XXIX

E X T R A C T

FROM

A DIARY OF A JOURNEY OVER THE GREAT DESART,

FROM

ALEPPO TO BUSSORI, IN APRIL 1782

COMMUNICATED

BY SIR WILLIAM DUNKIN,

AND PUBLISHED WITH A VIEW TO DIRECT THE ATTENTION OF FUTURE TRAVELLERS
TO THE SCENES DESCRIBED IN IT

APRIL 16

SET off at five in the morning, encamped at five in the evening, the day intensely hot, the soil in general sandy, some few shrubs and bushes, but now quite brown, and so dry, that with the least touch they fall to powder, many stalks of lavender and rosemary, and in very dry red sand several scarlet tulips, other sorts new to me, one of a singular kind, in colour and smell like a yellow lupin, but in figure like the cone of a fir-tree, from ten to twelve inches long

AFTER about two hours in this sort of country, the ground appeared more verdant and firm, we then came to some very extraordinary ruins our Shunk had seen, but never had approached them before, we prevailed on him he called the place *Castraboun*, another Arab called it *Calmar* our *Armenians*, who interpreted for us in very bad *Persian*, called it *Castro duo fratilis* (I try to give the names from their mode of pronouncing), what we first saw was a square, each side about 400 yards along the walls

now it is lost, remaining in many places, at each angle there is a circular tower, two or three in each of the sides, they rise much higher than the walls the towers and the wall constructed with very large blocks of cut stone To what use the holes of the square had been applied, I could form no conjecture, in it immense blocks of cut stone, and segments of arches of different dimensions, tumbled together in enormous heaps near to the gateway by which we entered, two arches remain perfect, a third nearly so, they were probably carried along the inside of (but distinct at least twenty feet from) the wall These arches spring from very slender pillars, each pillar a single shaft, the arches are nearly semicircular, of the same beautiful white stone as the pillars About a quarter of a mile from the Square there is another, which appears to be a fourth part less, the entrance into this is under the loftiest as well as the widest arch of stone I ever saw I had no means of measuring, which I much regretted I cannot draw, which I regretted much more The proportions of the pillars, and of the arch which they support, conduced to me something more just and beautiful than I can describe The inside of the arch is richly ornamented with sculpture at the sides there are niches, I suppose, for statues, the outer face of the building is composed of great blocks of stone as the greater square and in many places yet entire, appear to be as well chiseled and pointed as the best constructed marble building I ever saw, even at $\frac{1}{2}$ a c The height of the wall seems to be equal to that of the greater square, the thickness, which from some breaches quite through may be observed, from seven to eight feet, all through of the same stone, with little, if any, cement the number and disposition of the towers the same as in the other, but in this, where the towers rise above the wall, they are more ornamented, two circles or bands of sculpture at equal distances appear relieved from the body of each tower, & as all the

the tops are broken off, I could not guess how they had been closed. The sculpture on the inside of the great arch of entrance, and on many of the fragments of prostrated pillars, appear like those of Mr. Wood's plates of the ruins of *Palmyra*. Over the entrance-arch on the inside, are some remains of an inscription in *Arabic*, but so defaced, that our *Sher'ih*, who reads and writes *Arabic*, could not make out one word. All along the inside of this square, arches formed of the burnt brick are constructed, they project from the wall about thirty feet, and are about twenty feet high over the arches, and close up to the wall is a platform of earth perfectly level, and now covered with rich and scented herbage. No vestige of building appear in the hollow of this square, but many fragments of pillars lie in ruins, some are of brick, and so cemented, that it must be as difficult to separate their parts as if they were solid blocks of stone. There are no openings in the walls from which any thing could have been discharged, in the towers there are openings, at regular distances, which seem to have been designed to admit light only, not for any hostile purpose. Equidistant from each of the squares is a building of the same sort of stone, about fifteen feet square, though it appears to have been much higher, it is still considerably more lofty than the other buildings; the stairs by which this was ascended appear perfect from about twelve feet above the ground, what were lower, now a heap of rubbish, there does not remain the appearance of any communication between this and the other buildings, all the interjacent ground is level, and now verdant, no stream or well appears nearer than the well we stopt at yesterday, about six hours from hence. If this district could be supplied with water, it would be rich indeed, for several miles onward we thought we discovered the remains of trenches or cuts for the conducting of water over the plain. The *Abbas* were entirely ignorant respecting these extraordinary buildings, when, or by whom

erected, or when destroyed The *Sbaskb* hurried us away, very much dissatisfied that we had lost so much time, he swears he never will come near it again the distance from *Aleppo* is six days easy journey The *Sbaskb* says that we are now about forty miles from *Palmyra*, which is on our right, and about fifty from the *Euphrates*, on our left No person at *Aleppo* gave me any hint of such a place. The gentlemen of our factory at *Bussora* had never heard of it

XXX

PROSOPIS ACULEATA KOENIG

TSHĀMIE OF THE HINDUS

IN THE NORTHERN CIRCARS

BY DOCTOR ROXBURGH

THIS grows to be a pretty large tree, is a native of most parts of the coast, chiefly of low lands at a considerable distance from the sea, and may be only a variety of *P. Spicigera*, for the thorns are in this sometimes wanting, flowers during the cold, and beginning of the hot seasons

TRUNK tolerably erect, bark deeply cracked, dirty ash colour
BRANCHES irregular, very numerous, forming a pretty large shady head
PRICKLES scattered over the small branches; in some trees wanting
LEAVES alternate, generally bipinnate, from two to three inches long,
 pinnæ from one to four, when in pairs opposite, and have a gland between their insertions

LEAFLETS opposite, from seven to ten pair, obliquely lanced, smooth,
 entire, about half an inch long, and one-sixth broad

STIPULES none

SPIKES several, axillary, filiform, nearly erect

BRACKETS minute, one-flowered, falling

FLOWERS numerous, small, yellow, single, approximated

CALYX below, five toothed

FILAMENTS

LEAVES united at the base *Anthers* incumbent, a white gland on the apex of each, which falls off soon after the flower expands *Style* crooked *Stigma* simple

LEAVES long, pendulous, not inflated

SEEDS many, lodged in a brown mealy substance

THE pod of this tree is the only part used It is about an inch in circumference, and from six to twelve long, when ripe, brown, smooth, and contains, besides the seeds, a large quantity of a brown mealy substance, which the natives eat, its taste is sweetish and agreeable, it may therefore be compared to the *Spin h Agaroba*, or locust-tree (CERATODERIS Siliqua LINN)

A O T F

In compliance with Dr Karstic's opinion, I have called this a *Prosopis*, though I am aware that the antheral glands give it a claim to the genus *Adenanthera*

TO

TO THE HONOURABLE
SIR JOHN SHORE, BARONET,
GOVERNOR GENERAL, AND PRESIDENT OF THE ASIATIC SOCIETY

DEAR SIR,

I HAVE had from Mr Goldingham (one of the Honourable Company's astronomers at Fort Saint George, a person of much ingenuity, and who applies himself to the study of antiquities) some drawings taken from the cave on the island of *Elephanta*. They are the most accurate of any I have seen, and accompanied with a correct description. This gentleman argues ably in favour of its having been an *Hindu* temple, yet I cannot assent to his opinion. The immense excavations cut out of the solid rock at the *Elephanta*, and other caves of the like nature on the island of *Salsette*, appear to me operations of too great labour to have been executed by the hands of so feeble and effeminate a race as the aborigines of *India* have generally been held to be, and still continue and the few figures that yet remain entire, represent persons totally distinct in exterior from the present *Hindus*, being of a gigantic size, having large prominent faces, and bearing some resemblance to the *Abyssinians*, who inhabit the country on the west side of the *Red Sea*, opposite to *Aden*. There is no tradition of these caves having been frequented by the *Hindus* as places of worship, and at this period no *pooja* is performed at any of them, and they are scarcely ever visited by the natives. I recollect particularly, that RAGONET Row, when at *Bombay*, did not at all hold them in any degree of veneration.

I flatter myself that you, Sir, will agree with me in thinking the accompanying Memoir deserving of being inserted in our proceedings.

Mr Gov-

MR GOLDINGHAM acquaints me, that he has paid two visits to some curious remains of antiquity, about thirty-five miles southerly of Madras, commonly known by the name of the *Seven Pagodas*. He promises to transmit to me his remarks on these curiosities, with copies of the inscriptions, which are in characters unknown to the people of the district. He declares himself highly ambitious of the favor of being admitted into our Society; and I shall be much gratified in being instrumental to his obtaining that favour, from a conviction that he will greatly add to our stock of information, and prove an useful member.

I CANNOT conclude an address to you, Sir, at the worthy successor of the gentleman who lately presided over our Society with so much credit to himself and benefit to the public, without advertising to the memory of Sir WILLIAM JONES, a host universal science and ardent zeal for diffusing knowledge, I have had so many occasions to admire during the course of an acquaintance of twenty-five years.

I have the honour to be, with the greatest respect,

DEAR SIR,

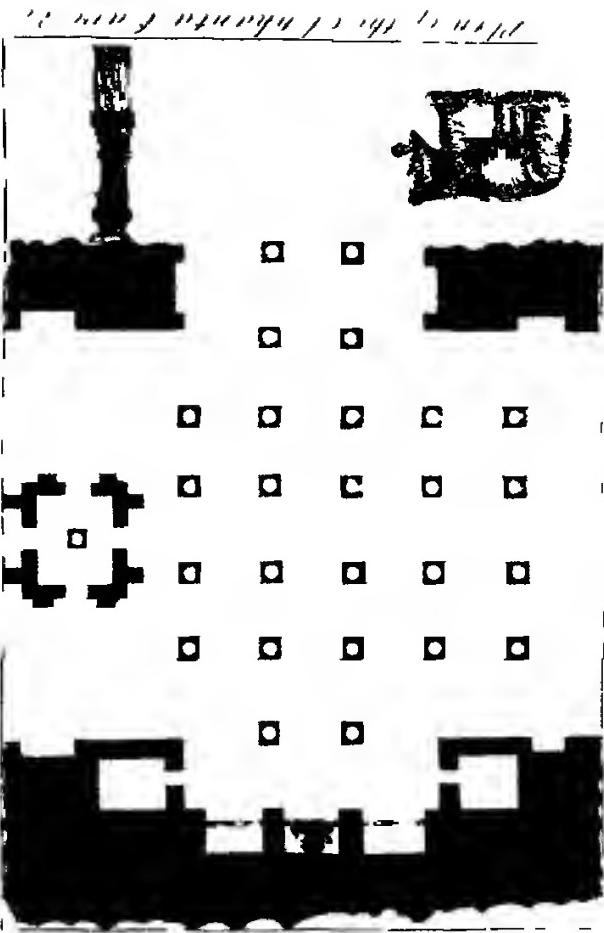
our most faithful and most obedient servant,

Carnac,
29th July, 1795

J. CARNAC

Landscape on the Hill at the opposite end of the Lake on the Island of Aphrodite





XXXI

S O M I A C C O U N T

OR THE

CAVE IN THE ISLAND OF ELEPHANTA

BY J. GOLDINGHAM, ESQ.

THE *Elephanta Cave*, which is situated in a small island in the harbour of *Bombay*, has deservedly attracted the attention of the curious. An elephant of black stone, large as the life, is seen near the landing-place, from which the island probably took its name—the cave is about three-quarters of a mile from the beach; the path leading to it lies through a bay, the hills on either side beautifully clothed, and, except when interrupted by the dove calling to her absent mate, a solemn stillness prevails, the mind is fitted for contemplating the approaching scene.

The cave is formed in a hill of stone; its massy roof is supported by rows of columns regularly disposed, but of an order different from any we have with us*, gigantic figures, in relief, are observed on the walls, and as well as the columns are shaped in the solid rock, and by artists it would appear possessed of some ability, unquestionably of astonishing precision. Several of the columns have been levelled, and the figure ruined, as I am informed, by the Portuguese, who were at the trouble (a small one) of dragging cannon up the hill, for the better effect of this exploit.—Destructive superstition seeks not for merit such outrages.

* See the sketch of one of the pillars.

to the flames and to destruction, members of a community most valuable, and structures doing honour to human ability! 1

The wall at the upper end of the cave is crowded with sculpture, the attention is first arrested by a grand bust, representing a being with three heads—the middle face is presented full, and expresses a dignified composure, the head and neck splendidly covered with ornaments. The face on the left is in profile, and the head-dress rich, in one of the hands is a flower, in the other a fruit resembling a pomegranate, a ring like that worn by the *H.* ... at present is observed on one of the wrists, the expression of benevolence by no means unpleasant. Different is the head on the right, the face is in profile, the forehead projects, the eye stare up at the place of hair, and the expression of a human soul seems vicarious on the covering of the head, one hand grasp a monstrous *C.* ... (the hand is twice as large as smaller, the whole together as broad as the anterior portion of the shoulder). The height of this bust is about six feet, and it carries a countenance about four, but the rough drawing of this piece of work will give a better idea of its size, than words.

In a niche opposite is supported by a gigantic figure leaning on dwarf, as in the drawing.

A niche of considerable dimension, and crowded with figures, on either side the former, in the middle of the niche, on the right, stands a gigantic figure, apparently female, but with a crest on her head. This figure has four arms, the forearms of the hands is leaning on the head of a bull, the outer grasps a *C. b. m.*, & while a circular shield is observed in the inner hand, the division of which is not visible, and on the right stands a male

Wearing a pronged instrument, resembling a trident, on the left is a female, holding a mace or sceptre, near the principal is a beautiful youth on an elephant, above this is a figure with four heads, supported by swans or geese, and opposite is a male with four arms, mounted on the shoulders of another, having a sceptre in one of the hands. At the top of the niche small figures in different attitudes are observed, seemingly supported by clouds.

The most conspicuous of the group on the niche to the left, is a male over seventeen feet in height, with four arms, on the left stands a female about fifteen feet high. The same circular rings worn by the present Hindu women, are observed on the legs and wrists of this figure, the hair bears a like correspondence in the mode of putting it up, the countenance is particularly soft, and expressive of gentleness. In the back ground, a figure with four heads, supported by birds, and one with four arms, on the shoulders of another, are also observed. Several smaller figures in attendance on the king at knee bent to the ground, in the attitude of addressing the principal, bears a close resemblance that in present use. The heads of most of the small male figures have a whimsical appearance, being covered with a exact resemblance of our wigs.

On each side of these groups is a small dark room, sacred in ancient times perhaps to a "Brahmin" but the impoluted Brahmins, but bats, spiders, scorpions, and snakes, are now in the possession

In one of the last described rooms, and nearer the side of the cave, is another female as observed in the action of labour, a female who in the figure seated in the corner of the niche, has head on credit like

our judges on the bench, the countenance and attitude of the female highly expressive of modesty and a timid reluctance a male behind urges her forward Several smaller figures compose this group

Curious it is to observe all the female figures have ornaments round the wrists and legs, like those worn by the *Hindo* women at present, while the males bearing the same correspondence, have ornaments round the wrists only.

Opposite the last niche, and fifty feet nearer the entrance, is another of equal dimensions, inclosing a figure that forcibly arrests the attention. It is a gigantic half-length of a male with eight arms round one of the left arms a belt, composed of human heads, is seen, a right hand grasps a sword uplifted to sever a figure, seemingly kneeling (but too much mutilated to distinguish it properly) on a block, held in the correspondent left hand, a *Cira de Capelli* rises under one arm, among the singular decorations of the head, a human skull is observed above are several small figures, represented in distress and pain Many of the figures mutilated, as is the principal, whose aspect possesses a great degree of unrelenting fierceness

Going to the other side of the cave, near one of the small rooms before-mentioned, a male sitting as the people of this country do at present is observed, a female in the same posture on his left, with an attendant on either side at the feet of the male is the figure of a bull touchant, and in each corner of the niche stands a gigantic guard Opposite is a correspondent niche the figures being a good deal mutilated, and the situation dark, prevent these being properly discriminated, a sitting male figure, having an attendant on either hand, is however perceived

A NICHES

A NICHÉ filled with figures, greatly defaced, is observed on each side the entrance. On one side is a male that had eight arms, which are all destroyed, in the back part is the figure with four heads, supported by birds, and the other figure with four arms, whimsically elevated. A large sitting figure is the principal in the opposite niche, a horse and rider in the back ground, the former caparisoned according to the present mode in this country.

On the left side and half way up the cave, is an apartment about thirty feet square, enclosing the Lingam, an entrance on the four sides, and each side of either entrance is supported by a figure seventeen feet in height, each figure being ornamented in a different style.

To^o part of this surprising monument of human skill and perseverance hitherto described, is generally called *the great cave*, its length is 130 feet, and breadth nearly the same. A plan accompanies this account, which, however, I cannot venture to pronounce perfectly correct, having mislaid a memorandum of *particulars* parts which were deduced, and with sufficient correctness perhaps from the *general* measures preserved. But there are compartments on both sides, separated from the great cave, by large fragments of rock and loose earth, heretofore probably a part of the roof. That on the right is spacious and contains several pieces of sculpture the most remarkable is a large figure, the body human, but the head that of an elephant. The lingam is also enclosed here. Above each of a line of figures, standing in a dark situation, is a piece of sculpture, pointed out to me as an inscription however (with the assistance of a torch) I found one an exact copy of the other, and with little resemblance of characters.

THE compartment on the other side contains several sculptures, and among the rest, a figure with an elephant's head and human body. A deep cavity in the rock hereabout contains excellent water, which, being sheltered from the influence of the sun, is always cool, and deservedly held in estimation by those whom curiosity leads here through a scorching atmosphere. A traditional account of the extent of this cavity, and the communication of its waters by subterraneous passages, with others, very distant, was given me by a native of the island, which would make a considerable figure in the hands of a poet.

GIGANTIC as the figures are, the mind is not disagreeably moved on viewing them, a certain indication of the harmony of the proportions. Having measured three or four, and examined the proportions by the scale we allow the most correct, I found many stood even this test, while the disagreements were not equal to what are met with every day in people whom we think by no means ill proportioned.

THE island wherein these curious remains of antiquity are situated, is about five miles and a half from *Bawby*, in an easterly direction; its circumference cannot be more than five miles: a neat village near the landing-place contains all its inhabitants, whom, inclusive of women and children, number about one hundred. Their ancestors, they tell you, having been improperly treated by the *Portuguese*, fled from the opposite island of *Sulset* hither, cultivating rice, and rearing goats for their support. In the same humble road do they continue. The islanders have no boat, they cut wood from the adjoining hills, which the purchasers remove in boats of their own, they are under our protection, and pay about fifty-six pounds annually to the government, the surplus revenue furnishes their simple clothing. By persevering in this humble path, these harmless people con-

tinue

time to rejoice in tranquillity under their banyan-tree. The cave, they tell you, was formed by the Goda and this is all they pretend to know of the matter.

VARIOUS have been, and are to this day, the conjectures respecting the Elephanta Cave. Those who attempt to deduce its origin from the Egyptians, from the Jews, or from ALEXANDER the Great, appear to me, with due deference, to give themselves much unnecessary trouble, which I shall further endeavour to shew as briefly as the subject will admit of, though at the same time it must be observed, that resembling features are not wanting in the case of the Egyptians and of the Jews, to lead towards such deductions, but these resemblances strike me as tending to the elucidation of a more interesting hypothesis, viz. That the systems of those people were *copies* of an original, found in *the past of the world*.

The striking resemblance in several particulars of the figures in the cave to the present Hindu race, would induce those who from history, as well as from observation, have reason to believe they have preserved the same customs from times immemorial, to imagine the ancestors of these people its fabricators, but those who are in a small degree acquainted with their mythology, will be persuaded of it, nor is a much greater extent of knowledge requisite to enable us to discover it to be a temple dedicated principally to Siva, the destroyer or changes.

The bust is doubtless a personification of the three grand Hindu attributes of that Being for whom the ancient Hindus entertained the most profound veneration, and of whom they had the most sublime conceptions. The middle head represents BRAHMA, or the creative attribute, that on the left, VISHNU, or the preserving, and the head on the right, SIVA, or the destructive or changing attribute.

THE figure with *one breast* has been thought by most to represent an *Amazon*, it however, appears to me a representation of the *consort of SIVA*, exhibiting the active power of her lord, not only as *BAWANI*, or courage, but as *ISAVI*, or the goddess of nature, considered as male and female, and presiding over generation, and also as *DURGA*. Here we find the bull of *ISWARA* (one of *SIVA's* names) and the figure bearing his trisulc, or trident. The beautiful figure on the elephant is, I imagine, *CAMA*, or the *Hindu God of Love*, the figure with *four heads*, supported by *birds*, is a representation of *BRAUMA*, and that with *five arms*, mounted on the shoulders of another, is *VISHNU*.

THE two principal figures in the niche to the left, represent, perhaps, *SIVA* and his Goddess as *PARVATI*. Here, as before, we observe *BRAUMA* and *VISHNU* in the back ground.

THE terrific figure with eight arms has been much talked of, some will have it to represent *SOLOMON*, threatening to divide the harlot's child, others, with more reason on their side, suppose it to represent the tyrant *CANSA*, attempting the life of the infant God *KRISHNA*, when fostered by the herdsmen *ANANDA*. To me, the third attribute, or the *destroyer in action*, appears too well represented to be mistaken. The distant scene, where the smaller figures appear in distress and pain, is perhaps the infernal regions. The figure about to be destroyed, does not seem to me an infant, but a full grown person, if, indeed, the *destroyer* was of the human size, the figure in question would bear the proper proportion as an infant, but as he is of enormous magnitude, a human *being*, full grown, would appear but an infant by the side of him, and thus it is, I imagine, that people have been deceived a cast by no means uncommon in circumstances like the present.

The sitting male and female figures having a bull couching at the feet of the former, are SIVA and his Goddess, and thus are they represented in the pagodas of the present day

No person can mistake the figure with the human body and elephant's head for any other than GANESHA, the Hindu God of Wisdom, and the first born of SIVA, and thus is he represented at present

From what has been advanced, it will appear uncontested, I imagine, that this is a *Hindu temple*, whence the *Lingam* is a testimony sufficient of SIVA's having presided here, without the other evidences which the intelligent in the *Hindu* mythology will have discovered in the course of this account.

To deduce the æra of the fabrication of this structure is not so easy a task, but it was, no doubt, posterior to the great schism in the *Hindu* religion, which, according to the *Purana*, I learn, happened at a period coeval with our date of the creation. Be this as it may, we have accounts of powerful princes who ruled this part of the country of a later date, particularly of one who usurped the government in the ninetieth year of the *Christian* æra, famed for a passion for architecture. Many worse hypothesis have been, than one which might be formed of his having founded the cave, but I am led to imagine, no certain conclusions on this dark subject could be drawn from the sources of information open at present.

XXXII

AN ACCOUNT OF THE PRESENT STATE OF DELHI

BY LIEUTENANT WILLIAM FRANKLIN

THE once celebrated city of *Dⁱn*, the capital of *Musulman* sovereignty in *Hindostan*, and, in more early times, the seat of *Hindu* dominion over northern *India*, has employed the pen of many different authors, *Ast^atic* and *Europ^eean*, though of the latter in a less degree than might have been expected.

The following account of the present state of this ancient city, is extracted from a journal of observations made during an official tour through the *Dowlat* and the adjacent districts, in company with Captain REYNOLDS, of the *Bombay* establishment, appointed by the *Bengal* government to survey that part of the country in the year 1793.

It cannot be said to contain much new information on things already described by others, but, as a faithful statement of the actual condition of the once flourishing metropolis of a great kingdom now in ruins, it may be acceptable, and in this hope it is offered, with deference to the Society, who will judge whether it be deserving of more general diffusion by publication with their more important researches.

THE extent of the ruins of old *Delhi* cannot, I suppose, be less than a circumference of twenty miles, reckoning from the gardens of *Shalimar*, on the north-west, to the *Kutub Minar* on the south-east, and proceeding from thence along the heart of the old city by way of the mausoleum of *Nizam-i-Asrār*, on which stands *Hawa Mahal*'s tomb, and the old fort of *Delhi*, on the banks of the *Jumna*, to the *dāwār gaṛo* or *Shah Jahanabad*.

THE environs to the north-west are crowded with the remains of spacious gardens and country-houses of the nobility, which were formerly abundantly supplied with water by means of the noble canal dug by *Ali Mirdār Khan*, and which formerly extended from above *Panipat* quite down to *Delhi*, where it joined the *Jumna*; fertilizing in its course a tract of more than ninety miles in length, and bestowing comfort and affluence on those who lived within its extent. This canal, as it ran through the suburbs of *Mughlī Pānāb*, nearly three miles in length, was about twenty-five feet deep, and about as much in breadth, cut from the solid stone-quarry, on each side, from which most of the houses in the neighbourhood have been built. It had small bridges erected over it at different places, some of which communicated with the garden-houses of the nobility.

IN the year of the *Hagiree* 1043 (A.C. 1631-2) the Emperor *Shah Jahan* founded the present city and palace of *Shah-Jahanabad*, which he made his capital during the remainder of his reign. The new city of *Shah-Jahanabad* lies on the western bank of the *Jumna*, in latitude $28^{\circ} 36'$ north. The city is about seven miles in circumference, and is surrounded on three sides by a wall of brick and stone, a parapet runs along the whole, with loop holes for musquetry, but there are no cannon planted on the ramparts. The city has seven gates, viz. *Lobore* gate, *Ajmere* gate, *Turkoman* gate,

gate, *Delhi* gate, *Moor* gate, *Cabal* gate, and *Cashmere* gate, all of which are built of free stone, and have handsome arched entrances of stone, where the guards of the city keep watch. Near the *Ajmere* gate is a *Madrassa*, or college, erected by *Ghazi-u-deen Khan*, nephew of *Nizam-ul-Mooluck*. It is built of red stone, and situated at the centre of a spacious quadrangle, with a stone fountain. At the upper end of the area is a handsome mosque built of red stone, inlaid with white marble. The apartments for the students are on the sides of the square, divided into separate chambers, which are small but commodious. The tomb of *Ghazi* is in the corner of the square, surrounded by a shrine of white marble, pierced with lattice-work. The college is now shut up, and without inhabitants. In the neighbourhood of the *Cabal* gate is a garden, called *Tees Huzzar Baug*, in which is the tomb of the queen *Malka-Zemave*, wife of the emperor *Mohammed Shah*; a marble tablet, placed at the head of the grave, is engraved with some *Persian* couplets, informing us of the date of her death, which happened five years since, *ann Higree 1203*. Near this tomb is another, of the princess *Zebbul Nissa Begum*, daughter of *Aurungzebe*. On a rising ground near this garden, from whence there is a fine prospect of *Shah Jahanabad*, are two broken columns of brown granite, eight feet high, and two and a half in breadth, on which are inscriptions in an ancient character.

WITHIN the city of new *Delhi* are the remains of many splendid palaces, belonging to the great Omrahs of the empire. Among the largest are those of *Kummier-u-deen Khan*, *Sau* to *Mohammed Shah*, *All Mirdan Khan*, the *Persian*, the *Lobab Ghazi-u-deen Khan*, *Seiduk Jung*, the garden of *Coopseeh Begum*, mother to *Mohammed Shah*, the palace of *Sadat Khan*, and that of *Sultan Darah Shekooh*.

All these palaces surrounded with high walls, and take up a considerable space of ground Their entrances are through lofty arched gateways of brick and stone, at the top of which are the galleries for music before each is a spacious court-yard for the elephants, horses, and attendants of the visitor Each palace has likewise a *Mahal*, or Seraglio, adjoining, which is separated from the *Dar-i-Khana* by a partition-wall, and communicates by means of private passages All of them had gardens with capacious stone reservoirs and fountains in the centre, an ample terrace extended round the whole of each particular palace, and within the walls were houses and apartments for servants and followers of every description, besides stabling for horses, *Icel Khana*, and every thing belonging to a nobleman's suit Each palace was likewise provided with a handsome set of baths, and a *Teb Khana* under ground The baths of SADLT KHAN are a set of beautiful rooms, paved and lined with white marble they consist of five distinct apartments, into which light is admitted by glazed windows from the top of the domes SEIDUR JUNG's *Teb Khana* consists of a set of apartments, built in a light delicate manner, one long room, in which is a marble reservoir, the whole length, and a small room, rised and built straded on each side, both faced throughout with white marble

SIRAM *Jehangirat* is adorned with many fine mosques, several of which are still in perfect beauty and repair The following are most worthy of being described the first, the *Jaria Maged*, or great cathedral This mosque is situated about a quarter of a mile from the royal palace, the foundation of it was laid upon a rocky eminence, named *Zuula Pahar*, and has been scarped on purpose The ascent to it is by a flight of stone steps, thirty-five in number, through a handsome gateway of red stone The doors of this gateway are covered throughout with plates of wrought brass,

brass, which Mr. BERNIER imagined to be copper. The terrace on which the mosque is situated, is a square of about fourteen hundred yards of red stone; in the centre is a fountain lined with marble, for the purpose of performing the necessary ablutions previous to prayer. An arched colonade of red stone surrounds the whole of the terrace, which is adorned with octagon pavillions at convenient distances, for sitting in. The mosque is of an oblong form, two hundred and sixty-one feet in length, surrounded at top by three magnificent domes of white marble, intersected with black stripes, and flanked by two *Minarets* of black marble and red stone alternately, rising to the height of a hundred and thirty feet. Each of these *Minarets* has three projecting galleries of white marble, and their summits are crowned with light octagon pavillions of the same. The whole front of the *Jama Musjid* is faced with large slabs of beautiful white marble, and along the cornice are ten compartments, four feet long, and two and a half broad, which are inlaid with inscriptions in black marble, in the *Naskhi* character, and are said to contain great part, if not the whole, of the *Koran*. The inside of the mosque is paved throughout with large flags of white marble, decorated with a black border, and is wonderfully beautiful and delicate. The flags are about three feet in length by one and a half broad. The walls and roof are lined with plain white marble, and near the *Kibla* is a handsome *taak*, or niche, adorned with a profusion of freeze-work. Close to this is a *nimir*, or pulpit, of marble, having an ascent of four steps, and ballustraded. The ascent to the *Minarets* is by a winding stair-case of a hundred and thirty steps of red stone, and at the top you have a noble view of the king's palace, and the whole of the *Cultub Minar*, the *Kurrunk Minar*, *Hawa Mahal*'s tomb, the palace of *Firoz Shah*, the fort of old *Dilli*, and the fort of *Lodi*, on the opposite of the *Jumna*. The domes are crowned with culasses, richly*

gilt, and prevent a glittering appearance from a distance. This mosque was begun by SHAH JEHAN, in the fourth year of his reign, and completed in the tenth. The expences of its erection amounted to ten lacks of rupees, and it is in every respect worthy of being the grand cathedral of the empire of Indostan.

Not far from the palace is the mosque of ROSHUN-U-DOWLAH, rendered memorable to the *Delbians* for being the place where NADIR SHAH saw the massacre of the unfortunate inhabitants. The cause assigned by historians for this unhuman act is, that a sedition broke out in the great market, in which two thousand Persians were slain. NADIR, on hearing of the tumult, marched out of the fort at night with a small force to the *Musjid* of ROSHUN-U-DOWLAH, where he was fired upon in the morning from a neighbouring terrace, and an officer killed close by his side. He instantly ordered an indiscriminate slaughter of the inhabitants, and his squadrons of cavalry pouring through the streets, before the afternoon put to death a hundred thousand persons of all descriptions. "The King of Persia," says the translator of FERISHTA, "sat, during the dreadful scene, in the *Musjid* of 'of Roshun-U-Dowla' 'None but slaves durst come near him, for his countenance was dark and terrible. At length the unfortunate Emperor, attended by a number of his chief Omrahs, ventured to approach him, with downcast eyes. The Omrahs who preceded MOHAMMED, bowed down their foreheads to the ground. NADIR SHAH sternly asked them what they wanted; they cried out with one voice, Spare the city. MOHAMMED said not a word, but tears flowed fast from his eyes, the tyrant, for once touched with pity, sheathed his sword, and said, For the sake of the prince MOHUMMUD, I forgive." Since this dreadful massacre this quarter of *Delhi* has been but very thinly inhabited. The

mosque of Roshun-a-Dowlah is situated at the entrance of the Chaudnay Chak, or market, it is built of red stone, of the common size, and surmounted by three domes richly gilt.

ZEENUL-AL MUSALLIJD, or the ornament of mosques, is on the banks of the Jumna, and was erected by a daughter of Aurungzebz, of the name of ZEFNUT AL NISSA'H. It is of red stone with inlayings of marble, and has a spacious terrace in front of it, with a spacious reservoir faced with marble. The princess who built it, having declined entering into the marriage state, laid out a large sum of money in the above mosque, and, on completing it, she built a small sepulchre of white marble, surrounded by a wall of the same, in the west corner of the terrace. In this tomb she was buried in the year of the Hegira 1122, corresponding with the year of Christ 1710. There were formerly lands allotted for the support and repairs of this place, amounting to a lack of rupees *per annum*, but they have all been confiscated during the troubles this city has undergone. Exclusive of the mosques above described, there are in Shab Zebanabad and its environs above forty others, but as most of them are of inferior size, and all of them of the same fashion, it is unnecessary to present any further detail.

THE modern city of Shab Zebanabad is rebuilt, and contains many good houses, chiefly of brick. The streets are in general narrow, as is usual in most of the large cities in Asia, but there were formerly two very noble streets, the first leading from the palace gate through the city to the Deler gate, in a direction north and south. This street was broad and spacious, having handsome houses on each side of the way, and merchants' shops well furnished with the richest articles of all kinds. SHAH JAHAN caused an aqueduct to be made of red stone, which conveyed the water

along the whole length of the street, and from thence into the royal gardens, by means of a reservoir under ground. Some remains of the aqueduct are still to be seen, but it is choked up in most parts with rubbish. The second grand street was likewise from the palace to the *Labor* gate, lying east and west. It was equal in many respects to the former, but in both of them the inhabitants have spoiled their appearance, by running a line of houses down the centre, and across the streets in other places, so that it is with difficulty a person can discover their former situation without a narrow inspection. The bazaars in *Delhi* are but indifferently finished at present, and the population of the city miserably reduced of late years. The *Chandni Chole* is the best furnished bazaar in the city, though the commerce is very trifling. Cotton cloths are still manufactured, and the inhabitants export indigo. Their chief imports are by means of the northern caravans which come once a year, and bring with them from *Carav* and *Cachmere* shawls, fruit, and horses, the two former articles are procurable in *Delhi* at a reasonable rate. There is also a manufacture at *Delhi* for bee-tree hooka bottoms. The cultivation about the city is principally on the banks of the *Jumna*, where it is very good, the neighbourhood produces corn and rice, millet and indigo. The limes are very large and fine. Precious stones likewise are to be had at *Delhi*, of very good quality, particularly the large red and black cornelians, and pectozas are sold in the bazaars.

THE city is divided into thirty-six monauls or quarters, each of which is named either after the particular Omrah who resided there, or from some local circumstance relative to the place. It appears that the modern city of *Sahib Zebunabad* has been built principally upon two rocky eminences, the one where the *Jama Musjid* is situated, named *Tigula Pahar*, and the other, the quarter of the oil-sellers, called *Bejula Pahar* from

both of these eminences you have a commanding view of the remainder of the city. Ancient *Delhi* is said by historians to have been erected by Rajah *Delu*, who reigned in *Hindostan* prior to the invasion of *Alexander the Great*; others affirm it to have been built by Rajah *Pitourah*, who flourished in a much later period. It is called in *Sanskrit* *Indraput*, or the abode of *Indra*, one of the *Hindu* deities, and it is also thus distinguished in the royal diplomas of the chancery office. Whether the city be of the antiquity reported, it is difficult to determine but this much is certain, that the vast quantity of buildings which are to be found in the environs for upwards of twenty miles in extent, as well as their grandeur and style of architecture, prove it to have once been a rich, flourishing, and populous city.

On the 11th of March we were presented to the King *Shah Allum*. After entering the palace, we were carried to the *Drona Khanab*, or hall of audience for the nobility, in the middle of which was a throne raised about a foot and a half from the ground. In the centre of this elevation was placed a chair of crimson velvet, bound with gold clasps, and over the whole was thrown an embroidered covering of gold and silver thread. A handsome *Sarauwi*, supported by four pillars incrusted with silver, was placed over the chair of state. The King at this time was in the *Tuskeb Khanab*, an apartment in which he generally sits. On passing a screen of Indian connaughts, we proceeded to the front of the *Tuskeb Khanab*, and being arrived in the presence of the King, each of us made three obeisances in turn, by throwing down the right hand pretty low, and afterwards raising it to the forehead, we then went up to the *Muamud* on which his Majesty was sitting, and presented our nuzzers on white handkerchiefs, each of our names being announced at the time we offered them. The King received the whole, and gave the nuzzers to *Mirza Akbar*.

SHAH, and two other princes who sat on his left hand. We then went back, with our faces towards the presence, made the same obeisance as before, and returned again to the Musnud. After a slight conversation, we were directed to go without the inclosure, and put on the *Khelauz* which his Majesty ordered for us, they consisted of light India dresses, a turban, jammah, and kummerbund, all cotton, with small gold sprigs. On being clothed in these dresses, we again returned to the *Tusbaab Khanab*, and after a few minutes stay, previous to which Captain REYNOLDS received a sword from the King, we had our discussion; and some servants were ordered to attend us in viewing the palace.

The present King, SHAH ALLUM, is seventy-two years of age; of a tall commanding stature, and dark complexion; his deportment was dignified, and not at all diminished by his want of sight, though he has suffered that cruel misfortune above five years. The marks of age are very strongly discernible in his countenance his beard is short and white. His Majesty appeared at our introduction to be in good spirits; said he was happy at our arrival, and desired we would visit his palace and the fort of *Sohm Ghor*. He was dressed in a rich kheem-khaub, and was supported by pillows of the same materials.

I IMAGINED I could observe in his aspect a thoughtfulness, as if sufficiently well acquainted with his present degraded situation, and the recollection of his former state.

The palace of the royal family of TIMUR was erected by the Emperor SHAH JAHAN at the time he finished the new city it is situated on the western bank of the Jumna, and surrounded on three sides by a wall of red stone. I suppose the circumference of the whole to be about a mile

The two stone figures, mentioned by BERNIER, at the entrance of the palace, which represented the Rajah of *Citore* and his brother *Pottra*, seated on two elephants of stone, are not now to be seen, they were removed by order of AURUNGZEEB, as harbouring too much of idolatry; and he enclosed the place where they stood with a screen of red stone, which has disfigured the entrance of the palace. The first object that attracts attention after entering the palace, is the *Dewan Aum*, or public hall of audience, for all descriptions of people. It is situated at the upper end of a spacious square, and is a noble building, but at present much in decay. On each side of the *Dewan Aum*, and all round this square, are apartments of two stories high, the walls and front of which, in the times of the splendor of the empire, were adorned with a profusion of the richest tapestry, velvets, and silks, the nobles vying with each other in rendering them the most magnificent, especially on festivals, and days of public rejoicings, when they presented a grand sight. These decorations have however been long since laid aside, and nothing but the bare walls remained. From the *Dewan Aum*, we proceeded through another handsome gateway to the *Dewan Khass*, before mentioned. The building is situated at the upper end of a spacious square, and elevated upon a marble terrace, about four feet high. The *Dewan Khass* in former times has been adorned with excessive magnificence, and though stripped and plundered by various invaders, still retains sufficient beauty to render it admired. I judge the building to be a hundred and fifty feet in length, by forty in breadth. The roof is flat, supported by a great many columns of fine white marble, which have been richly adorned with inlaid flower-work of beautiful stones. The cornices and borders have been decorated with a great quantity of frieze and sculptured work. The ceiling was formerly incrusted with a work of rich foliage of silver throughout the whole

whole extent, which has been long since taken off and carried away. The delicacy of the inlaying in the compartments of the walls is much to be admired, and it is matter of heartfelt regret to see the barbarous ravages that have been made in picking out the different cornelians, and breaking the marble by violence. Around the interior of the *Dewaun Khanab*, in the cornice, are the following lines, engraved in letters of gold, upon a white marble ground.

اکر فردوس بیر ردي رهیں است
ھیں اسما وہیں است وہیں است

" If there be a paradise upon earth, this is it—'tis this, 'tis this " The terrace on which the *Dewaun Khanab* is built is composed of large beautiful slabs of white marble, and the building is crowned at top with four pavillions or cupolas, of the same materials.

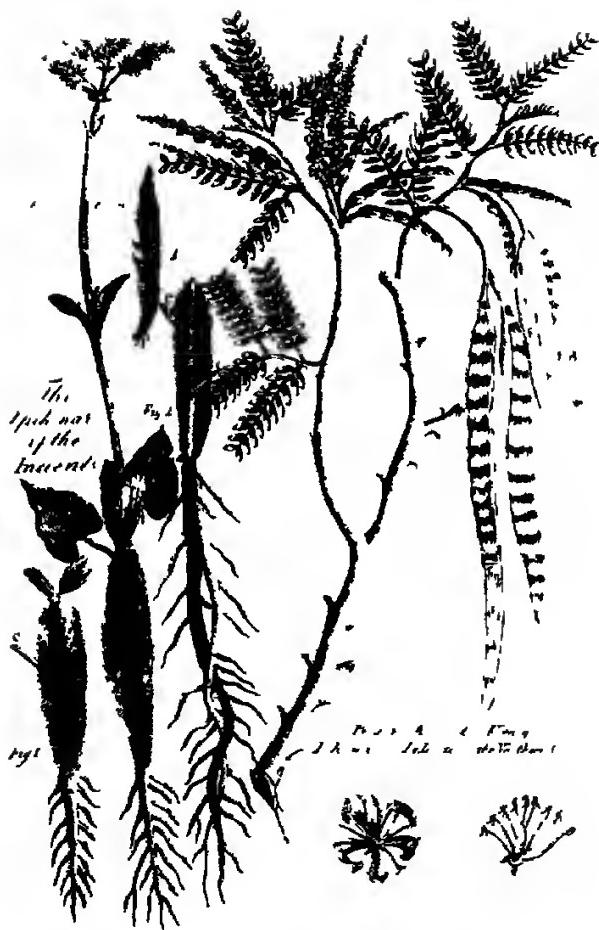
The royal baths, built by SHAH JAHAN, are situated a little to the northward of the *Dewaun Khanab*, and consist of three very large apartments surmounted by white marble domes. The inside of the baths is lined, about two thirds of the way up, with marble, having a beautiful border of flower-worked cornelians and other precious stones, executed with taste. The floors are paved throughout with marble in large slabs, and there is a fountain in the centre of each, with many pipes. Large reservoirs of marble, about four feet deep, are placed in different parts of the walls, the light is admitted from the roof by windows of party-coloured glasses, and spacious stones, with iron gratings, are placed underneath each separate apartment. There is a noble mosque adjoining, entirely of white marble, and made after the fashion described above. In the *Shab Baug*, or the royal gardens, is a very large octagon room, which looks towards the river.

Jumna. This room is called *Shab Burj*, or the royal tower, it is lined with marble; and from the window of it the late heir apparent, MIRZA JUWAN BHURJI, made his escape in the year 1784, when he fled to Lucknow he descended by means of a ladder made with turbans, and as the height is inconsiderable, effected it with ease. A great part of this noble palace has suffered very much by the destructive ravages of the late invaders. The *Rohillas* in particular, who were introduced by GHOLAUM KAUNDER, have stripped many of the rooms of their marble ornaments and pavements, and have even picked out the stones from the borders of many of the floorings. Adjoining is the fortress of *Seling Gbur*, which you reach by a stone bridge, built over an arm of the *Jumna*. The fort is now entirely in ruins. At the eastern end of it we were shewn the sally-port, from which GHOLAUM KAUNDER KHAN made his escape with all his retinue, when the place was besieged by the *Mahrattas* in 1788. The river *Jumna* running directly underneath this bastion, the tyrant crossed it immediately, and fled to *Mervat* in the *Dorab*.

THE *Gentry Munter*, or observatory, in the vicinity of *Delhi*, has been described by former travellers. It was built in the third year of the reign of MOHAMMED SHAH, by the Rajah JEYSING, who was assisted by many persons celebrated for their science in astronomy from Persia, India, and Europe; but died before the work was completed, and it has since been plundered and almost destroyed by the Jeets under JUWAHER SING.

I WILL only add a short account of the royal gardens of *Sbalmar*. These gardens, made by the Emperor SHAH JEHAN, were begun in the fourth year of his reign, and finished in the thirteenth, on which occasion according to Colonel Dow, the Emperor gave a grand festival to his court

court These gardens were laid out with admirable taste, and cost the enormous sum of a million sterling at present their appearance does not give cause to suppose such an immense sum has been laid out upon them, but great part of the most valuable and costly materials have been carried away The entrance to them is through a gateway of brick, and a canal, lined with stone, having walks on each side with a brick pavement, leads up to the *Dewana Khanab*, or hall of audience, most part of which is now fallen down from thence, by a noble canal having a fountain in the centre, you proceed to the apartments of the *Haram*, which embrace a large extent of ground In the front is an *Iwan*, or open hall, with adjoining apartments, the interior of which are decorated with a beautiful border of white and gold painting, upon a ground of the finest chunam At the upper end of this *Iwan* was formerly a marble throne raised about three feet from the ground all of which is removed On each side of this *Iwan*, enclosed by high walls, are the apartments of the *Haram*, some of which are built of red stone and some of the brick faced with fine chunam, and decorated with paintings of flowers of various patterns All these apartments have winding passages which communicate with each other and the gardens adjoining by private doors The extent of *Shalimar*, does not appear to have been large I suppose the gardens altogether are not above a mile in circumference A high brick wall runs around the whole, which is destroyed in many parts of it, and the extremities are flanked with octagon pavilions of red stone The gardens still abound with trees of a very large size and very old The prospect to the southward of *Shalimar* towards *Delhi*, as far as the eye can reach, is covered with the remains of extensive gardens, pavilions, mosques, and burying places, all desolate and in ruins The environs of this once magnificent and celebrated city appear now nothing more than a shapeless heap of ruins, and the country round about is equally forlorn



BOTANICAL OBSERVATIONS
ON THE SPIKENARD OF THE ANTIENTS

INTENDED AS A SUPPLEMENT
TO THE LATE SIR WILLIAM JONES'S PAPERS ON THAT PLANT

BY WILLIAM FOXBURGH, M D

~~VALERIANA JATAMANSI.~~

~~GRANATINA JATAMANSI.~~

~~FLOWERS~~ triandrous, ~~lanceolate~~, ~~oblong~~, ~~slightly~~ ~~twice-fold~~, the inner radical pair ~~perfoliate~~, and cordate, the ~~inner~~ ~~outer~~ smaller, sessile, and sub-lanceolate; seeds crowned with a pappus

V JATAMANSI of Sir William Jones ~~the~~ ~~and~~ ~~Researches~~, vol 2,
page 405, 417, and page 118 of this volume

NOVEMBER 6th, 1794 I received from the Honourable C A Bruce, Commissioner at Coos-Beyhar, two small ~~parchments~~ ~~with~~ plants of this valuable drug He writes to me on the 2nd September (having had the plants been on the road) that he had, the day before, received them from the Deb Rajah of Bootan, and further says, that the Bootans know the plant by two names, viz Jatamansi and Pampi, ~~or~~ Pampi.

I NEED scarce attempt to give any further history of this famous odoriferous plant than what is merely botanical; and that with a view to help to

illustrate the learned dissertations thereon, by the late Sir *William Jones*, in the 2d and 4th volumes of these Researches, and chiefly by pointing out the part of the plant known by the name *Indian Nard*, or *Spikenard*: a question on which *Mattheodus*, the commentator of *Dioscorides*, bestows a great deal of argument, viz. Whether the roots or stalks were the parts esteemed for use; the testimony of the antiquits themselves on this head being ambiguous. It is therefore necessary for those who wish for a more particular account of it, to be acquainted with what that gentleman has published on the subject.

THE plants now received are growing in two small baskets of earth, in each basket there appears above the earth between thirty and forty hairy spike-like bodies, but more justly compared to the tails of *Ermynes*, or small *Hearts**; from the apex of each, or at least of the greatest part of them, there is a smooth lanceolate, or lanceolate-oblong, three or five-nerved, short-petioled, acute or obtuse, slightly serrulate leaf or two shooting forth. Fig. 1 represents one of them in the above state, and on gently removing the fibres, or hairs which surround the short petioles of these leaves, I find it consists of numerous sheaths, of which one, two, or three of the upper or interior ones are entire, and have their fibres connected by a light-brown coloured membranous substance, as at b, but in the lower exterior sheaths, where this connecting membrane is decayed, the more durable hair-like fibres remain distinct, giving to the whole the appearance of an *Ermyn*'s tail.

* The term spica, or spike, is not so ill applied to this substance as may be imagined; several of the *Indian* grasses, well known to me, have spikes almost exactly resembling a single straight piece of nardus, and when those hairs (or flexible awns like bristles) are removed, *Play's* word, "finit ex radice pinguis et crassa," are by no means applicable. See Fig. 2,

this part, as well as the roots, are evidently perennials.* The root itself (beginning at the surface of the earth where the fibrous envelope ends) is from three to twelve inches long, covered with a pretty thick light brown coloured bark from the main root, which is sometimes divided, there issues several smaller fibres. Fig. 2 is another plant with a long root, here the hair-like sheaths, beginning at a, are separated from this, the perennial part of the stem, and turned to the right side, at the apex is seen the young shoot, marked b, which is not so far advanced as at Fig. 1, ccc show the remains of last year's annual stem. When the young shoot is a little further advanced than in Fig. 2, and not so far as in Fig. 1, they resemble the young convolute shoots of monocotyledonous plants, June 1791. The whole of the abovementioned plants have perished without producing flowers, notwithstanding every care that could possibly be taken of them. The principal figure in the drawing, marked Fig. 3, and the following description, as well as the above definition, are therefore chiefly extracted from

* The above described perennial hairy portion of the plant, is clearly the *Indian* spikenard of our shops, but whether the nardus of the antiquits or not, I leave to better judges to determine, however, I believe few will doubt it after having read Sir William Jones's Dissertations thereon, and compared what he says with the accompanying drawings of the perennial hairy part of the stem of this plant, which are taken from the living plants immediately under my own eyes. The drawing of the herbaceous, or upper part of the plant, is out of the question in determining this point, and only refers to the place the plant bears in our botanical books. While writing the above, I desired an Hindu servant to go and buy me from their apothecaries shops a little *Yatamani*. Without saying more or less, he immediately went and brought me several pieces of the very identical drug I have been describing a drawing of one of the pieces is represented at Fig. 4, and agrees not only with those I have taken from the living plants, but also exceedingly well with *Garcia ad Orta's* figure of the *nardus indica*, which is to be found at page 129 of the fourth edition of *Claudii's Latin* translation of his *History of Indian*

the engraving and description in the second volume of these Researches, and from the information communicated to me by Mr *Buri*, the gentleman who had charge of the plants that flowered at *Gaya*, and who gave Sir *William Jones* the drawing and description thereof.

DESCRIPTION OF THE PLANT

Root, it is already described above

Stem, lower part perennial, involved in fibrous sheaths, &c as above described, the upper part herbaceous suberect, simple, from six to twelve inches long

Leaves four-fold, the lowermost pair of the four radical are opposite, sessile, oblong, forming, as it were, a two-valved spathe, the other pair are also opposite petioled, cordate, margins waved and pointed, those of the stem sessile and lanceolate, all are smooth on both sides.

Corymb terminal, first division trichotomous.

Bracts awied.

Lalix scarce any

Corol one petaled, funnel-shaped, tube somewhat gibbous. Border five-cleft
Stamens, filaments three, project above the tube of the corol, anthers in-cumbent.

Pistil, germ beneath. Style erect, length of the tube. Stigma simple.

Pericarp, a single seed crowned with a pappus

